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OM nucleic - nucleic search, using sw model

Run on: September 7, 2001, 13:55:08 : Search time 65.24 Seconds  
(without alignments)  
3456.002 Million cell updates/sec

Title: US-08-900-220C-8

Perfect score: 1191  
Sequence: 1 ATGGCTCTCCGACCAATCT.....CGAGAGACTACTGGGCTGA 1191

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 324599 seqs, 9465562 residues

Total number of hits satisfying chosen parameters: 649198

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Maximum Match 0%

Listing first 45 summaries

Database :

Issued\_Patents\_NA:\*  
1: /cgn2\_6/prodata/2/lna/5A.COMB.seq:\*  
2: /cgn2\_6/prodata/2/lna/5B.COMB.seq:\*  
3: /cgn2\_6/prodata/2/lna/6A.COMB.seq:\*  
4: /cgn2\_6/prodata/2/lna/6B.COMB.seq:\*  
5: /cgn2\_6/prodata/2/lna/PCRTUS.COMB.seq:\*  
6: /cgn2\_6/prodata/2/lna/Backfillseq1.seq:\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	967.6	81.2	1190	1	US-08-176-427B-3
2	967.6	81.2	1190	2	US-08-356-060A-2
3	967.6	81.2	1190	4	US-08-460-900C-2
4	427.8	35.9	1281	1	US-08-460-900C-3
5	419.8	35.2	1313	1	US-08-176-427B-7
6	419.8	35.2	1313	2	US-08-356-060A-4
7	419.8	35.2	1313	4	US-08-460-900C-4
8	407	34.2	1715	4	US-08-757-230A-1
9	407	34.2	1715	5	PCR-US95-02315-1
10	390.6	32.8	1425	5	US-08-356-060A-6
11	390.6	32.8	1425	4	US-08-460-900C-6
12	389	32.7	1576	1	US-08-748-591-5
13	389	32.7	1576	1	US-08-748-591-10
14	381.4	32.0	1277	1	US-08-176-427B-1
15	381.4	32.0	1277	2	US-08-356-060A-1
16	381.4	32.0	1277	4	US-08-460-900C-1
17	355.8	29.9	1056	1	US-08-176-427B-5
18	355.8	29.9	1056	2	US-08-356-060A-3
19	335.6	28.2	939	4	US-08-356-060A-7
20	335.6	28.2	939	4	US-08-460-900C-7
21	316.2	26.5	1256	1	US-08-176-427B-9
22	316.2	26.5	1256	2	US-08-356-060A-5
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24	101.4	8.5	144	3	US-08-946-329A-2
25	101.4	8.5	144	3	US-08-567-357A-2
26	101.4	8.5	144	4	US-08-729-743A-2
27	101.4	8.5	144	5	PCR-US95-15463-2

28	101.4	8.5	144	5	PCR-US95-15923-2	Sequence 2, App11
29	99.8	8.4	144	3	US-08-946-329A-1	Sequence 1, App11
30	99.8	8.4	144	3	US-08-567-357A-1	Sequence 1, App11
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32	99.8	8.4	144	5	PCR-US95-15463-1	Sequence 1, App11
33	99.8	8.4	144	5	PCR-US95-15923-1	Sequence 1, App11
34	44.6	3.7	1642	1	US-08-232-015-2	Sequence 2, App11
35	44.4	3.7	3292	3	US-09-320-878-22	Sequence 22, App1
36	43	3.6	1686	2	US-08-648-657-14	Sequence 14, App1
37	43	3.6	2504	1	US-08-073-384C-3	Sequence 3, App11
38	43	3.6	2504	1	US-08-254-359A-3	Sequence 3, App11
39	43	3.6	2504	1	US-08-483-043-3	Sequence 3, App11
40	43	3.6	2504	1	US-08-481-238-3	Sequence 3, App11
41	43	3.6	2504	2	US-08-471-066B-3	Sequence 3, App11
42	43	3.6	2504	2	US-08-484-955-3	Sequence 3, App11
43	43	3.6	2504	2	US-08-757-653-3	Sequence 3, App11
44	43	3.6	2504	2	US-08-599-491-3	Sequence 3, App11
45	43	3.6	2504	2	US-08-756-386-3	Sequence 3, App11

#### ALIGNMENTS

RESULT 1  
US-08-176-427B-3  
; Sequence 3, Application US/08176427B  
; Patent No. 5789543  
; GENERAL INFORMATION:  
; APPLICANT: Ingham, Phillip W.  
; APPLICANT: McMahon, Andrew P.  
; APPLICANT: Tablin, Clifford J.  
; TITLE OF INVENTION: Vertebrate Embryonic Pattern-Inducing  
; TITLE OF INVENTION: Proteins and Uses Related Thereto  
; NUMBER OF SEQUENCES: 33  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: LAHIVE & COCKFIELD  
; STREET: 60 State Street  
; CITY: Boston  
; STATE: MA  
; COUNTRY: USA  
; ZIP: 02109  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: ASCII(text)  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08176,427B  
; FILING DATE: 30-DEC-1993  
; CLASSIFICATION: 435  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Vincent, Matthew P.  
; REGISTRATION NUMBER: 36,709  
; REFERENCE/DOCKET NUMBER: HMI-006  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (617) 227-7400  
; TELEFAX: (617) 227-5941  
; INFORMATION FOR SEQ ID NO: 3:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 1190 base pairs  
; TYPE: nucleic acid  
; STRANDEDNESS: both  
; TOPOLOGY: linear  
; MOLECULE TYPE: cDNA  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: 1..1191  
; US-08-176-427B-3

Query Match 81.2%; Score 967.6; DB 1; Length 1190;  
Best Local Similarity 88.3%; Pred. No. 1.4e-193;  
Matches 1051; Conservative 0; Mismatches 139; Indels 0; Gaps 0;



D	b	121	GTGCGCTCTGTATACAAAGCAGTTTGTCGCCAAGTATATGCCAGAGCCCTG66GGCGAGT	180
Q	y	181	GGGCGACGAGAGGGAGGGGTGGCAAGGGGCTCCAGCGCTTCGCGGACCTCTGTGCCCAAC	240
D	b	181	GGGCGACGAGAGGGAGGGGTGGCAAGGGGCTTCAGCCATCCGGGTATATATGTGGCCCGGA	360
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D	b	241	TACACCCCGACACTTATATCTTCAAGATGAGGAGAACACGGGGCCAGACCGCTCATGACA	300
Q	y	301	GAGCGTTGCAAGAGAGGGGTGAACGCTTTGGCCATTTGCCGCTGATATACATGTGGCCCGGA	360
D	b	301	GAGCGTTGCAAGAGAGGGGTGAACGCTTACGCATCCGGGTATATATGTGGCCCGCGA	360
Q	y	361	GTGCGCCTACGAGTGACTAGAGGCTTGGGACGAGAGCGCCACACGCTCAGGATTCATC	420
D	b	361	GTAGCGCTACGTTGTACTGAAGGCTTGGGACGAGAGCGCCACACGCTCAGGATTCATC	420
Q	y	421	CACTACGAAGGCCGTGCTTTGGACATCACTACGTTGACCCGGACCCGACACAAATATAGG	480
D	b	421	CACTACGAAGGCCGTGCTGCTTGGACATCACTACGTTGACCCGGACCCGACAAATATAGT	480
Q	y	481	TTGCTGCGGCGCTCCGACATGGAAGCGGCTTCGACTGGGTCTACTACGAGTCCCGAAC	540
D	b	481	TTGTTTGGCGGCGCTACGACTGTGGAAGCGGATTCGACTGGGTCTACTACGAGTCCCGAAC	540
Q	y	541	CACGTCACAGTGTGCGTCAAAAGCTATATCACTAGGCGGTCCGGGCGGCGCTGCTTT	600
D	b	541	CACATCCAGCTATCGGTCAAAAGCTATATCACTAGGCGGTCCGAGCGGAGCGCTGCTTT	600
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D	b	601	CCGGGAATTCGACGGTGTGCGGCTTGGCGAGCGCGCAACGGGAAGGGCTCAGGGAATCACT	660
Q	y	661	CGGGAAGTGGGTTTGGGCGGCAATGGCTGAGAGCGGGGTGGTCCGACGCGGCTGCTG	720
D	b	661	CGTGTGTACTGGGTACTGGCGCTGTATGCAAGCGGCGGCAAGTGTATCCACCGCACTGTG	720
Q	y	721	CTCTCTCTGACCGGGAGCTTGCACGCGCGGGCTTCATTTGTGTGCTGTGAGACCGAGTG	780
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Q	y	781	CTCTCAGCGCAACTGTGTGCTCAGCGCCCTGGCACCTGTGTGTCGGCTGAGAGCGGCGG	840
D	b	781	CTCTCAGCGCAACTGTGTGCTCAGCACCCCTGGCATCTGTGTGCTGTGCGCGGCGCACCG	840
Q	y	841	CCGCGCGACGACACTTGTGACAGCGGTTCGCGCGCGCGGCTACGCGCTGGGGACTCGGTTG	900
D	b	841	CTCTCTCAGAGTACTTTGTACACCGGTTCGCGCGCGGCTTCACGTGTGGCGACTCTGGGTG	900
Q	y	901	CTGGCGCCCGCGGGGAGTGTGCTTCGCGCACGCGCGGTGGCCCGCTGTGGCGCGGGAGAA	960
D	b	901	CTGGCGTCCGGCGGGGAGCGGCTTCAGACCGCGCGCGGTATGCCGCGGTGGCGCGGAGAA	960
Q	y	961	GCGCTGGGCGCTGTTCGACCGCTCACTGTGGGCAACGGAGCCTCTGTGTAACAGCTCTCTC	1020
D	b	961	GCGCTGGGCGCTGTTCGACCGCTCACTGTGGGCAACGGAGCCTCTGTGTAACAGCTCTCTC	1020
Q	y	1021	GCGCTTGTGACCGGGTGTGGAGATTCACACAGTGGGGGCAACGCGGCTTTGGCCCGCTG	1080
D	b	1021	GCTCTCTGTACAGGGGTGTGAGAGATTCACACAGTGGGGGCAACCGCGGCTTCGCGCCCTTGG	1080
Q	y	1081	AGACTGTGACACGCTAGAGGGGCGTGTCCCGCGGCGGGCGGTCCAGCGCACTGGCATG	1140
D	b	1081	CGGCTGTGCAACGGGCGTGGGGGCTGTGCTCCCTGGGGGTGTGAGTCCAGCGCACTGGCATG	1140
Q	y	1141	CATTGTACTCTGGGCTCTCTACCGCTTACGGGAGAGAGACTACTGGGCTG	1190
D	b	1141	CATTGTACTCTGGCTCTCTTACCGCTTACCGCTGGCGGAGAGATTAATGGCTG	1190

RESULT 3  
US-08-460-900C-2

```

Sequence 2 Application US/08460900C
Patent No. 6165747
GENERAL INFORMATION:
APPLICANT: Ingham, Phillip W.
APPLICANT: McMahon, Andrew P.
APPLICANT: Tabin, Clifford J.
APPLICANT: Bumcrot, David A.
APPLICANT: Marti-Gorosstiza, Elisa
TITLE OF INVENTION: Vertebrate Embryonic Pattern-Inducing
TITLE OF INVENTION: Proteins and Uses Related Thereto
NUMBER OF SEQUENCES: 62
CORRESPONDENCE ADDRESS:
ADDRESSEE: FOLEY, HOAG & ELIOT LLP
STREET: One Post Office Square
CITY: Boston
STATE: MA
COUNTRY: USA
ZIP: 02109
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/460,900C
FILING DATE: 5-JUNE-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/435,093
FILING DATE: 4-MAY-1995
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/356,060
FILING DATE: 14-DEC-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/176,427
FILING DATE: 30-DEC-1993
ATTORNEY/AGENT INFORMATION:
NAME: Vincent, Matthew P.
REGISTRATION NUMBER: 36,709
REFERENCE/DOCKET NUMBER: NHV-006.05
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 832-1000
TELEFAX: (617) 832-7000
INFORMATION FOR SEQ ID NO: 2:
SEQUENCE CHARACTERISTICS:
LENGTH: 1190 base pairs
TYPE: nucleic acid
STRANDEDNESS: both
TOPOLOGY: linear
MOLECULE TYPE: cDNA
FEATURE:
NAME/KEY: CDS
LOCATION: 1..1188
US-08-460-900C-2

Query Match 81.2%, Score 967.6; DB 4; Length 1190;
Best Local Similarity 88.3%; Pred. No. 1.4e-193;
Matches 1051; Conservative 0; Mismatches 139; Indels 0; Gaps 0;

QY 1 ATGGCTCTCTGACCAATCTACTGCGCTTGRCCTCTTGCGCACTTCTGGCGGTGCGAGCC 60
Db 1 ATGGCTCTGCGCGGCAAGTCTGTTGCCCTGTGCTCTTGCGCACTTCTTGCGCACTTCTGCG 60
QY 61 CAGAGCTGCGGGGCGGGGCGGGGCGGGGCGGGGCGGGGCGGGGCGGGGCGGGGCGGGGCGGGGCG 120
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QY 121 GTGCGGCTACTCTTACAGCAATTTGTGCGCGGGGCTGCGAGAGCGGAGCCCTGGGCGCCAGT 180
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QY 421 CACTACGAGAGCGGCTGTTGACATCACTACAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 480
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QY 781 CCTCAGAGCAACTGTGCTACAGCGGCTGAGCACTGAGTGTGCTGCTGAGGAGGAGGAGGAGGAG 840
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QY 841 CCGGCGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 900
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Db 1141 CATTGCTACTCTGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 1190

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RESULT 4
US-08-460-900C-3
; Sequence 3, Application US/08460900C
; Patent No. 6165747
; GENERAL INFORMATION:
; APPLICANT: Ingham, Phillip W.

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; APPLICANT: McMahon, Andrew P.
; APPLICANT: Tablin, Clifford J.
; APPLICANT: Bumcrot, David A.
; APPLICANT: Marti-Gorositz, Elisa
; TITLE OF INVENTION: Vertebrate Embryonic Pattern-Inducing
; NUMBER OF SEQUENCES: 62
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: FOLEY, HOAG & ELIOT LLP
; STREET: One Post Office Square
; CITY: Boston
; STATE: MA
; COUNTRY: USA
; ZIP: 02109
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.30
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/460,900C
; FILING DATE: 5-JUNE-1995
; PRIORITY APPLICATION DATA:
; APPLICATION NUMBER: US 08/435,093
; FILING DATE: 4-MAY-1995
; PRIORITY APPLICATION DATA:
; APPLICATION NUMBER: US 08/356,060
; FILING DATE: 14-DEC-1994
; PRIORITY APPLICATION DATA:
; APPLICATION NUMBER: US 08/176,427
; FILING DATE: 30-DEC-1993
; ATTORNEY/AGENT INFORMATION:
; NAME: Vincent, Matthew P.
; REGISTRATION NUMBER: 36,709
; REFERENCE/DOCKET NUMBER: HMV-006.05
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (617) 832-1000
; TELEFAX: (617) 832-7000
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1281 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: both
; TOPOLOGY: linear
; MOLECULE TYPE: cDNA
; FEATURE:
; NAME/KEY: CDS
; LOCATION: 1..1233
; US-08-460-900C-3

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Query Match 35.9% Score 427.8; DB 4; Length 1281;
Best Local Similarity 63.5% Pred. No. 4,1e-81;
Matches 670; Conservative 0; Mismatches 382; Indels 3; Gaps 1;
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QY 98 GCGCGTATCGGCGAGCAAGCTGCTGCGCTTACTACAGCAATTTGTGCCCGGCGTGC 157
Db 113 GAGAGCGCGCTCGCA---AGCTCGTGCTCTTGTCCACAGCAAGTTCACCCCAAGCTGC 169
QY 158 CAGAGCGAGCGCTGCGGCGGCGCAAGTGGGCGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 217
Db 170 CGAGAGAGACCTTGGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 229
QY 218 GCTTCGCGGAGCTGTGCGCAACTACACCCGAGATCTTCAAGAGTAGAGAGACA 277
Db 230 GCTTCAAGAGCTACACCCCAACTACATCCGAGATCTTCAAGAGTAGAGAGACA 289
QY 278 GTGAGCGGAGCGGCTGATGACCGAGCGGTGCAAGAGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAG 337

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Db 290 CGGGTCCGACCGCTCATGACCCAGCGCTGCAAGACCGCTGTAACCTCACTGGCCATCT 349  
 QY 338 CCGTGATGAAACATGTGGCCCGGAGTGGCCTAGAGTGAAGGCTGGAGAGAGACG 397  
 Db 350 CTGTCAATGAACCACTGGGTGTGAACCTGGGTGACCGAAGCGGGAGTGAACATG 409  
 QY 398 GGCACACGCTCAGATTCATCTCAGTACAGAAAGCCGTGGTTGGACATCACTACGTCTG 457  
 Db 410 GCCATCCTCAGAGAGTCTTTACACTATAGAGGGCCCGGGGTGATATATACCACTCAG 469  
 QY 458 ACCGCGACCGCAACAGTATGGTGTCTGGCGCCCTCGCATGGAAGCCGGCTTCAGCT 517  
 Db 470 ACCGTACCGAAATTAATATATGATGACTGTGGCGCCCTTAGAGTGAAGCGCGCTTCAGCT 529  
 QY 518 GGGTCTACTACAGTGTCCCGAACCAGTCCAGCTGTGGTCAAAAGCTGATATCACTACG 577  
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 Db 590 CTGCGAAGACAGTGGCTGCTTTCTCTCCGAGCCGAGGTGCGCTTAGAAGACGGGAGC 649  
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 Db 650 GTGTGGCCCTGTAGCTGTAAAGCCAGAGACCGGGTGTCTGGCCATGGGGAGATGGGA 709  
 QY 698 GGGTGTGCCCGACCGCGTGTCTCTCTGACCGGGACTTCAGCGCCGGGCTTCAT 757  
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 QY 998 CGCTGTGTGTAACGATGCTCTGCTCTGTCTACGCGGTTCTGAGAGTCAACCACTGGG 1057  
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 Db 1070 CTCAGTTGGCCCTTCTGGCCCTCGCACTGTTCCTCC 1104

RESULT 5  
 US-08-176-427B-7  
 ; Sequence 7, Application US/08176427B  
 ; Patent No. 5789543  
 ; GENERAL INFORMATION:  
 ; APPLICANT: Ingham, Phillip W.  
 ; APPLICANT: McMahon, Andrew P.  
 ; APPLICANT: Tablin, Clifford J.  
 ; TITLE OF INVENTION: Vertebrate Embryonic Pattern-Inducing  
 ; NUMBER OF SEQUENCES: 33  
 ; CORRESPONDENCE ADDRESS:  
 ; ADDRESSEE: LAHIVE & COCKFIELD  
 ; STREET: 60 State Street  
 ; CITY: Boston  
 ; STATE: MA  
 ; COUNTRY: USA  
 ; ZIP: 02109

; COMPUTER READABLE FORM:  
 ; MEDIUM TYPE: Floppy disk  
 ; COMPUTER: IBM PC compatible  
 ; OPERATING SYSTEM: PC-DOS/MS-DOS  
 ; SOFTWARE: ASCII(text)  
 ; CURRENT APPLICATION DATA:  
 ; APPLICATION NUMBER: US/08/176,427B  
 ; FILING DATE: 30-DEC-1993  
 ; CLASSIFICATION: 435  
 ; ATTORNEY/AGENT INFORMATION:  
 ; NAME: Vincent, Matthew P.  
 ; REGISTRATION NUMBER: 36,709  
 ; REFERENCE/DOCKET NUMBER: HMI-006  
 ; TELECOMMUNICATION INFORMATION:  
 ; TELEPHONE: (617) 227-7400  
 ; TELEFAX: (617) 227-5941  
 ; INFORMATION FOR SEQ ID NO: 7:  
 ; SEQUENCE CHARACTERISTICS:  
 ; LENGTH: 1313 base pairs  
 ; TYPE: nucleic acid  
 ; STRANDEDNESS: both  
 ; TOPOLOGY: linear  
 ; MOLECULE TYPE: cDNA  
 ; FEATURE:  
 ; NAME/KEY: CDS  
 ; LOCATION: 1..1314  
 ; US-08-176-427B-7

Query Match 35.2%; Score 419.8; DB 1; Length 1313;  
 Best Local Similarity 64.5%; Pred. No. 1,9e-79;  
 Matches 701; Conservative 0; Mismatches 362; Indels 24; Gaps 4;

QY 41 CACTTCTGGCGCTGCCAGCCAGAGCTGCGGGCGGGCGCGGCTGGCGCGCC 100  
 Db 47 CGCTGTGTGTGCTGCCCGGCTGCTGTGGGCGCGGCGGCTTGGAAAGAGCGGC 106  
 QY 101 GCTATGGCGGCAACGATGCTGCTGCGCTCTCAAGCAATTTGTGGCGGCTGGCAG 160  
 Db 107 AC-----CCCAAAAGGTGACCCCTTGAAGCTTCAAGCAAGTTATTCACAGTAGCCG 160  
 QY 161 AGCGACCTGTGGGCGCAGTGGGCGAGGAGGGAGGTGGCAAGGGGCTCCGAGGCT 220  
 Db 161 AGAAGACCTCTAGGGGCGACGGCGAGATATGAAGGAAGTACAAAGACTCCGACAT 220  
 QY 221 TCCGGACCTGTGCCCACTACAACTCCGACATCTTCAAGATGAGGAACAATG 280  
 Db 221 TTAAGAACTCAACCCCAATTACAAACCCGACATCATTTAAAGATGAGAAACACGG 280  
 QY 281 GAGCGACCGCTGATGACGAGGCTTGCAGAGAGGATGAACGCTTTGGCATTGGCG 340  
 Db 281 GAGGAGACCGGCTGATGACTCAGAGGTGCMAAGCAATTTAAATGCTTTGGCATCTCTG 340  
 QY 341 TGATGAACATGTGGCCCGGAGTGGCCCTAGAGTGAAGTGAAGGCTGGAGAGAGAGCGCC 400  
 Db 341 TGATGAACATGTGGCTGTGAGTGAAGGCTGCGATGACCGAGGCTGGATAGAGAGGCC 400  
 QY 401 ACCAGCTCAGATTCATCTCACTACGAAAGCCGCTTTGGATCACTACGTCTGAC 460  
 Db 401 ATCAATTCAGAGAGTCTCTACATATGAGGGTTCAGACAGTGAATCAACAGCTCCGACC 460  
 QY 461 GCGACCGCAACAGTANGGTGTCTGCGCGCTTCGCAAGTGAAGCGCGCTTCGACTGG 520  
 Db 461 GGGACCGCAGCAAGTACGAGTGTGCTGCTGCTGCTGTGGAAGCAGTTTCGACTGG 520  
 QY 521 TCTACTAGAGTCCCGCAACAGCTCCAGTGTGGTGAAGCTGATACACACACGCGG 580  
 Db 521 TCTACTATGAATCCAAAGCTCAATCACTTCTGTGAAGCAGAGATCCGTGGGG 580  
 QY 581 TCCGGGCGGCGGCTGCTTTCCGGGAAATGCAACTGTGCGCTGTGAGCGCGAGCGGA 640  
 Db 581 CCAATTCGGGCGCTGTTTCCGGGATCCGACCGTGCACCTGTGAGAGAGGCGGACCA 640

OY	641	AAGGCTCGGGAACTCACCACGGGAGAGACTTGGGCTTTTGGGCGCCATGTGATCGACGGG	700
OY	641	AGCTGTGTAAAGACTTACATCCCGGAGACCGGCTGTGGCGGCTATGACACAGGGCGGGC	700
OY	701	TGTGTCCCAACGCGGTCGTCTCTTCCCTGTAGCCGGGACTTGCAGGCGCGGGCTTCATTG	760
OY	701	TGCTGTACAGGACTTCTCACCCTTCTGTGACCGGACGAGAGGCCCAAGAAGTCTCTT	760
OY	761	TGGGTGTGAGAGACCGAGTGGCTCTCAAGCAAACTGTGTCTACAGCCCTGACACTGGGT	820
OY	761	ACGTGATGTAGAACCTTGAACCCCGGAGCGCCTGTGTGTCTACACCGCGCGACACTGGCT	820
OY	821	TTGGCGGTC-----GAGGGCCGGCGCCCGCCGCAAGGCACTTGTGACACGGGT	868
OY	821	TCTGTGGCGCGCACAAAGACTCGGGGCCACAGCGCCGGGCGAAGCGGCTCTTTGGCACCC	880
OY	869	TGCGGGCCCGGCTACGGGCTGTGGGAGTCTGTGGCGCCCGGGCGGGA---TGGCTTC	925
OY	881	GCGTCCGCCCCGGGCAACGCGCTTACGTGTGGCTTAAACGGGCGGGAGACCGCGGCTGC	940
OY	926	GAGCAGAGCGCGTGTGGCCCGTGTGGC---GCGGAGAGAAACCCGTGGGCGTGTTCGCGCGC	982
OY	941	TGCCCGCGCGGTGCACACGGGTACGCGTGTGGAGAGGAGGAGGCGGGCGGTACGGCGCC	1000
OY	983	TCACCGGGCAAGGGACGCTTCTGTGTAAAGATGTCTCTGGCTCTTGTCTACGCGGTTCTGG	1042
OY	1001	TCAGGGGCGAGGACCACTTCTATCAACACCGGGTGTGCCCTCGTGTCAACGCTGCACACG	1060
OY	1043	AGACTTCACAGTGGGCGCACCGGCTTTTGGCCCTTGTAGATCTGTGACGCGCTAAGGG	1102
OY	1061	AGGAGCAACAGTGGGCGACACCGGGCCCTTGGCGGCTTCCGCCCTGGGCGCACGCGCTGTGG	1120
OY	1103	CGCTGCT 1109	
OY	1121	CCGCGCT 1127	

RESULT 6  
US-08-356-060A-4  
Sequence 4, Application US/08356060A  
Patent No. 5844079  
GENERAL INFORMATION:  
APPLICANT: Ingham, Phillip W.  
APPLICANT: McMahon, Andrew P.  
APPLICANT: Tabin, Clifford J.  
TITLE OF INVENTION: Vertebrate Embryonic Pattern-Inducing  
TITLE OF INVENTION: Proteins and Uses Related Thereto  
NUMBER OF SEQUENCES: 47  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: LAHIVE & COCKFIELD  
STREET: 60 State Street  
CITY: Boston  
STATE: MA  
COUNTRY: USA  
ZIP: 02109  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: ASCII(text)  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/356,060A  
FILING DATE: 14-DEC-1994  
CLASSIFICATION: 435  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 08/176,427  
FILING DATE: 30-DEC-1993  
ATTORNEY/AGENT INFORMATION:  
NAME: Vincent, Matthew P.  
REGISTRATION NUMBER: 36,709  
REFERENCE/DOCKET NUMBER: HMT-006CP  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (617) 227-7400

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1 TELEFAX: (617) 227-5941
2
3 INFORMATION FOR SMO ID NO:
4
5 SEQUENCE CHARACTERISTICS:
6
7 LENGTH: 1313 base pairs
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9 TYPE: nucleic acid
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11 STRANDEDNESS: both
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13 TOPOLOGY: linear
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15 MOLECULE TYPE: cdna
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17 FEATURE:
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19 NAME/KEY: CDS
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21 LOCATION: 1..1314
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Query Match	35.2%;	Score 419.8;	DB 2;	Length 1313;
Best Local Similarity	64.5%;	Pred. No. 1.9e-79;		
Matches 701; Conservative	0;	Mismatches 362;	Indels 24;	Gaps 4.

QY	41	CACCTTCTGAGCGCTGCACAGCCAGACCTGGGGCCGGGCGGGGGCCGGTTGGCCGGCCGC	100
Db	47	CGCTGCTGTGTGTGCCCCGGGCTGGGCTGTGGGCCGGGCGGGGGTTTGGAAAAGAGCGGC	106
QY	101	GCTATGCGCGCAGAGAGCTGCTGCGGCTACTGTACAAGCAATTTGTGCCGGCGTGCCAG	160
Db	107	AC-----CCCAAAAAGTGAGCCCTTAGGCTTACGCTACAGAGATTATTTCCCAACGTAGCCG	160
QY	161	AGCGGACCCCTGGGCGCCAGTGGGCGACGGGAGGGAGGGTGGCAAGGGGCTCCGAGCGT	220
Db	161	AGAAAGACCCCTAGGGGGCCAGCGGCAAGATATGAAGGGAGAGATCAAGAAACTCCGAACGAT	220
QY	221	TCCGGGACCTCGTGGCCCACTAACCCCCGACATCATCTTCAAGATGAGAGAACAGTG	280
Db	221	TTAAGGAACTACACCCCAATTAACCCCCGACATCATATTATTAAGATGAGAAAACACGG	280
QY	281	GAGCGGACCGGCTGTATGACCGAGCGTTGCAAGAGAGAGGGTGAACGCTTTGGCCATTGCCG	340
Db	281	GAGCGAGACCGGCTGTATGACTCAGAGGTCGCAAGAGCAAGTTAAATGCTTGCCCATCTCTG	340
QY	341	TGATGAAACATGTGGGCGCGGAGTGGCCCTTACAGATGATCTGAGGGCTTGGACGAGAGCGCC	400
Db	341	TGATGAACACAGTGGGCTGTGATGAGAGTGGCGATGACCGAGGGCTGGGATGAGAGAGCGCC	400
QY	401	ACCAGCGTCAAGGATTCACATCCACTAGAAAGCGCGTCTTGGACATCACTAGATGCTGCAG	460
Db	401	ATCATTTAGAGAGAGTCTTACACTATGAGGGTCGAGCACTGACATCAACACAGTCCGACC	460
QY	461	GCGACCGCAACAGTATGAGGTGCTGTGGCGCGCTCGCAGTGGAGCGGCGCTTCGACTGGG	520
Db	461	GGGAGCGGACAGAAAGTACGGCATGTGGGCTGGCTGGCTGTGTGAAGCAGGTTTTCGACTGGG	520
QY	521	TCTACTAGAGTCCCGGCAACACGTCACAGTGGGTCGCAAACTGTTAACTGATACAGGGGG	580
Db	521	TCTACTAGAAATCCAAAGCTCACATCCATGTTCTGTGTGAACACAGAACTCCGTGGCGG	580
QY	581	TCCGGGCGGGGCGGCTGCTTTCGGGGAATGCAACTGTGGCCCTGTGGAGCGGCGAGCGGA	640
Db	581	CCAAATCCGGGGCGGTCTTCCCGGGATCCGCCACCGGTGACCTGGAGGACGGGCGGAGACA	640
QY	641	AAGGCTCGGGGAACTGCACCGCGGAGACTGGGTTTGTGGCGGCCAATGCTGATAGCGCGGG	700
Db	641	AGCTGTGAAGAGACTTAGCTCCCGGAGACCGGCTCTGGCGGCTGACGCAACAGGCGCGGC	700
QY	701	TGGTCCCAACGCGGTGTGTCCTTCGAGACCGGAGACTGTGCAAGCGCGGGCTTCATTTG	760
Db	701	TGCTTTACAGGACTCTTCTCACCTTCTTGAGCCGCGAGCAGAGGCGCCCAAGAAAGTCTTCT	760
QY	761	TGGCTGTGGAGACCGATGAGGCTCCACGCCAAACTTTGTACGCGCTTGGCACTGTGTGT	820
Db	761	ACGTGATGAGAACGCTGGAGCGCGCGCAGAGCGCTGTCTGTACGCGCGGCGACACTGTCT	820
QY	821	TTTGGCGCTC-----GAGGGCGGGCGCCGCGCAGGCGCACTTTGCACCGGTGT	868
Db	821	TCTGGGCGCCCGCACAACTCTGGGGCGCCAGCGCGGCGCAAGCGCGCTTCTTGGCAGGC	880













[illegible]

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Db      1035  CCGCCGCTCAGACGGGCCAGGGCACCATTCATCAACCGGGGTGCTGGCTGTACGC   1094
QY      1035  GGTTCGTGGAGATCAACCAGTGGGGCCACCGGCGTTTGCCGCCCTTGAGACTGCTCACGC   1094
Db      1095  GGTCATTCGAGGACACACACTGGGCCACCGGGCGCTTCGGCGCCCTTCGCCGTGGCGACGC   1154
QY      1095  GCTAGGGGC   1103
Db      1155  GTCCTGCG   1163

RESULT 12
US-08-748-591-5
; Sequence 5, Application US/08748591
; Patent No. 5759811
GENERAL INFORMATION:
APPLICANT: Epstein, Ervin
APPLICANT: Hu, Zhilan
APPLICANT: Bonifas, Jeanette
TITLE OF INVENTION: Mutant Human Hedgehog Gene
NUMBER OF SEQUENCES: 23
CORRESPONDENCE ADDRESS:
ADDRESSEE: Fish and Richardson
STREET: 2200 Sand Hill Road
CITY: Menlo Park
STATE: CA
COUNTRY: USA
ZIP: 94025
COMPUTER READABLE FORM:
MEDIUM TYPE: floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patent Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/748,591
FILING DATE:
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Sherwood, Pamela J
REGISTRATION NUMBER: 36,677
REFERENCE/DOCKET NUMBER: 06510/067001
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 322-5070
TELEFAX: (415) 854-0875
INFORMATION FOR SEQ ID NO.: 5:
SEQUENCE CHARACTERISTICS:
LENGTH: 1576 base pairs
TYPE: nucleic acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE: cDNA
US-08-748-591-5

Query Match          32.7%; Score 389; DB 1; Length 1576;
Best Local Similarity 61.8%; Pred. No. 5.le-73;
Matches 710; Conservative 0; Mismatches 370; Indels 69; Gaps 3;

QY      18 TCTACTGCCCTGTGCTGCTGTGGCACTTGTGGCGCTGCCAGCCAGACGTGGGGCGGG   77
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Db      172 TCTGCTGTAAGTCGTCGTCCTCGCTGCTGTATGTATGCGGACATGCGGTGGACCGGG   231
QY      78 CCGGGGGCGCGGTGGCGCGCGCGCGCTATGCGCGGAAGCAAGCTCCGTCGGCTACTACAA   137
           ||| |||| | | | | | | | | | | | | | | | | | | | | | | | | | |
Db      233 CAGGGGGGTTCTGGGAAGAGAGGCAC-----CCAAAAAGCTGACCCCTTTAGCCTACA   285
QY      138 GAATTTGTGCGCGGCGTGCAGACGAGACCCCTGGCGCCAGTAGTGGCCACGAGGAGGAG   197
           ||| |||| | | | | | | | | | | | | | | | | | | | | | | | | | |
Db      286 GCAGTTTATCCCCAATGTGGCGCGAGAAGACCTTAGCGCCGACGCGAAGATAAGAGGAA   345
QY      198 GTGGCAAGGGGCTCCGAGCGCTTCGGGAGCTGTGCCCACACTACAACCCCGACATCAT   257
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Db 346 GATCTCCAGAAATCCGACGATTTTAAAGAACTCACCCTCCAAATTAACACCCGACATCAT 405
QY 258 CTTCAGAGATGAGAGACAGATGAGACCCGCTGATAGACCGATTTGAGAGAGAG 317
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Db 406 ATTTAAGATGAGAAAGAACCGGACGAGAGGCTGATGACTCAAGATGTAAGACAA 465
QY 318 GGTGAACGCTTTGGCCATTTCCGTATGAACATGTGCCCCGAGTCCCTACAGATGAC 377
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 466 GTTGAACGCTTTGGCCATTTCCGTATGAACAGATGCCCCAGAGTGTAAACTCGCGGTGAC 525
QY 378 TGAGGCTGGAGAGAGAGACGACACGCTCAGATTCATCCATACAGAGGCGCTGC 437
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Db 526 CGAGGCTGGAGAGAGATGAGTACCTACAGAGAGTCTGCTACATACAGAGGCGCTGC 585
QY 438 TTGAGCATCTACTACTGCTGACCGCGACCAACAAGTATGGTGTCTGGCGCTCCG 497
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Db 586 AGTGAACATCACACGCTGACCGCGACGCAAGTACGCGATCTGCGCCGCTGC 645
QY 498 AGTGAACGCGGCTTGCATGAGTCTACTACAGATCCGCAACACAGCTCAGCTGCAT 557
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Db 646 GGTGAGGCGCGCTTGCATGAGTCTACTACAGATCCAGCAATATCTCAGCTGCAT 705
QY 558 CAAAGCTGATTACTACTGCGGCTCCGCGCGCGCTCTTCCGGAATGCAACTCT 617
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Db 706 GAAAGAGAAACTCGGTGCGCGCAAAATCGGAGGCTCTTCCGCGCTCGCGCACT 765
QY 618 GCGCCTGTGAGACGCGCGACGAAAGGCTGCGGAACTGACCGCGAGACTGGGTTT 677
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Db 766 GCACCTGGAGACAGGCGGACCAAGCTGTGAAGACCTGAGACCCCGGAGCGCTGCT 825
QY 678 GCGGCGCATGCGCTCAGCGCGGTGCTGCCACGCGGCTGCTCTTCTGAGCCGGA 737
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 826 GCGCGCGAGACAGAGCGCGCTGCTTACAGAGCTCTCCTACTTCTCTGAGCCGGA 885
QY 738 CTTCGAGCCCGCGCTTCTTGTGCTGTGAGAGACGAGTGGCTTCCAGCAACTGTT 797
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 886 CCAGCGCGCCAAAGAGCTTCTTACGTGATGAGACGCGGAGCGCGCGAGCGCTGCT 945
QY 798 GCTACAGCCCTGGACACTGCTGTTTGGCCG-----TCGAGGCGCGCGCGCGCG 846
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 946 GCTCACCGCGCGACCTCTCTTTTGTGCGCGCGCAACAGACTCGGCCACCGGAGCGC 1005
QY 847 CCAGCGGACTTTGACACGCTGTTGCGCGCGCGCTACGCGCTGGGAGACTCGGTGCTGC 906
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1006 CCAGGCTGCTGCGGCTCGCGCGCGCTTCCGCGGCGCGACTGCGGCGCTGTT 1065
QY 907 CCGGCGGCGGATGCGCTTGGCGACAGCGCGCGCTGCGCGCG----- 946
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1066 CCGCACCGCGCTGCGCGCGCGCGCTGCTGCTGCGCGCGAGCTGACGCGGAGCG 1125
QY 947 -----TGCGCGGAGAGAAAGCGCTGCGCGCTTT 974
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1126 CCGGCTCTGCGCGCGCTGCTGACACAGCTGAACCTTAACGAGAGCGCGCGCGCTTA 1185
QY 975 CCGCGCGCTACCGCGACAGGAGCGCTGCTGTAACGATGCTGCGCTCTTGTACG 1034
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1186 CCGCGCGCTACCGCGACAGGAGCTTCTCAATCAACCGGCTGCGCTCTGCTACG 1245
QY 1035 GGTTCGAGAGTCAACCAATGGGCGACCGCGCTTTTGGCCCTTGAAGCTCTGTACG 1094
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1246 GGTTCATCGAGAGACAGCTGCGCGCGCTTCTGCGCGCTTCTGCGCTGCGCGAC 1305
QY 1095 GCTAGGCGC 1103
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Db 1306 GCTCTGCGC 1314

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RESULT 13
US-08-748-591-10
: Sequence 10, Application US/08748591
: Patent No. 5759811
: GENERAL INFORMATION:
: APPLICANT: Epstein, Ervin

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: APPLICANT: Hu, Zhilan
: APPLICANT: Bonifas, Jeanette
: TITLE OF INVENTION: Mutant Human Hedgehog Gene
: NUMBER OF SEQUENCES: 23
: CORRESPONDENCE ADDRESS:
: ADDRESSEE: Fish and Richardson
: STREET: 2200 Sand Hill Road
: CITY: Menlo Park
: STATE: CA
: COUNTRY: USA
: ZIP: 94025
: COMPUTER READABLE FORM:
: MEDIUM TYPE: Floppy disk
: COMPUTER: IBM PC compatible
: OPERATING SYSTEM: PC-DOS/MS-DOS
: SOFTWARE: Patent Release #1.0, Version #1.25
: CURRENT APPLICATION DATA: US/08/748,591
: FILING DATE:
: CLASSIFICATION: 435
: ATTORNEY/AGENT INFORMATION:
: NAME: Sherwood, Pamela J
: REGISTRATION NUMBER: 36,677
: REFERENCE/DOCKET NUMBER: 06510/067001
: TELECOMMUNICATION INFORMATION:
: TELEPHONE: (415) 322-5070
: TELEFAX: (415) 854-0875
: INFORMATION FOR SEQ ID NO: 10:
: SEQUENCE CHARACTERISTICS:
: LENGTH: 1576 base pairs
: TYPE: nucleic acid
: STRANDEDNESS: single
: TOPOLOGY: linear
: MOLECULE TYPE: cDNA
US-08-748-591-10

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Query Match 32.7%; Score 389; DB 1; Length 1576;
Best Local Similarity 61.8%; Pred. No. 5.1e-73;
Matches 710; Conservative 0; Mismatches 370; Indels 69; Gaps 3;

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QY 18 TCTACTGCCCTTGTGCTGCTTGGCACTTCTGCGCTGCCAGCCGAGAGCTCGGCGCG 77
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 172 TCTGCTGATGCTCTGCTCTCTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTG 231
QY 78 CCGGGGGCGCGTTGGCGCGCGCGCTATGCGGCAAGAGCTGCGCGCTACTACAA 137
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 232 CAGGGGCTTGGGAAAGAGGAGC-----CCAAAAGCTGAGCCCTTTAGCTTACA 285
QY 138 GCAATTTGTGCGCGCGCTGCCAGAGCGGACCTGGCGCGCGCACTGGGCGAGCGAGGGAG 197
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 286 GCAGTTTATCCCAATGTGCGCGAGAGACCTTAGCGCGCAAGGATGAAGAGGAA 345
QY 198 GGTGCGAGGCGCTCCGAGCGCTTCCGAGACCTGCTGCCAATCTACACCCGACATCAT 257
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Db 346 GATCTCCAGAAATCTCGAGCGATTAAAGAACTCACCCCAATTTCAACCCCGACATCAT 405
QY 258 CTTCAGAGATGAGAGACAGTGAAGCGGACCGCGCTGATGACGAGCGGTTGCAAGAGAG 317
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 406 ATTTAAGATGAGAAACACCGGAGCGGACAGCTGATGACTCAGAGGTGTAAAGACAA 465
QY 318 GGTGAACGCTTTGGCCATTTGCGTATGAACATGTGGCCCGGAGTGCCTACAGATGAC 377
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 466 GTTGAACGCTTTGGCCATTTGCGTATGAACAGAGTGGCGAGAGTGAACCTCGGCTGAC 525
QY 378 TGAGGCTGGAGAGAGCGGACACGCTAGAGATTCCTCCACTACAGAGCGCTGC 437
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 526 CGAGGCTGGAGAGAGAGTGGCCACACTCAGAGAGAGTCTGCACTACAGAGCGCGCGC 585
QY 438 TTGGAACATCACTACTGCTGACCGGAGCGGCAAGTATGGGTTGCTGGCGCGCTGCGC 497
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 586 AGTGAACATCACAGCTGACCGCGGAGCGCGCAAGTACGAGATGCGCGCGCTGCGC 645

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QY 498 AGTGAAGCCGCTGCTGACTGAGTGGTCTACTACAGATCCCGGACACACGCTCCAGCTGGCT 557
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 646 GGTGAGAGCCGCTTGTGACATGGGTGTACTACAGATCCAGGACATATCCACTGCTGGT 705
QY 558 CAAGCTGATTAATCACTGAGGAGTCCGGGCGGCGGCTGCTTTCCGGGAAATGCAACTGT 617
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 706 GAAAGCAGAGAACTCGGTGGCGGCAATATCGGAGGCTGCTCCCGGGCTCGGCGACGGT 765
QY 618 GCGGCTGTGAGGCGGAGGAAAGGCTCGGGAACTGACACCGGAGAACTGGGTTT 677
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 766 GCACTGTGAGACAGGCGGACCAAGCTGTGAAGAGACTGAGCCCGGAGACCGGCTGCT 825
QY 678 GCGGCGGATGCTGACAGCCGCGGTGTGTCGCGCGGCTGCTGCTGCTGACCGGGA 737
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 826 GCGGCGGAGAGACAGGCGCGGCTGCTGCTACAGGACTTCTCTGAGACCGCGA 885
QY 738 CTTCAGAGCGCGGAGCTTACTTGTGCTGTGAGAGAGAGTGGCTTCACGCAAACTGT 797
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 886 CGACGCGGCGCAAGAGTCTTCTACGTGATGAGACGCGGAGCGCGGAGCGCTGCT 945
QY 798 GCTACGCGCTGACCTGCTGTGCTTGGCGC-----TGAAGGCGCGGCGCGCGC 846
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 946 GCTACCGCGCGCAGCTGCTTGTGTGCGCGCGCACACAGACTCGGCGCACCGGAGCC 1005
QY 847 CCAAGGCACTTGTGACCGGCTGTTCGCGCGGCTACGCGCTGGGAGCTGCTGCTGGC 906
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1006 CGAGGCTCTCTCGGAGCTCGGAGCGCGCTTCCGGGCGGCACTGGGCGCTCGGCGCTGT 1065
QY 907 CCGCGCGGAGTGGCTTGGCGGACAGCGCGGTGGCGCTG----- 946
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1066 CGCGAGCGGCTGCGCGCGGCGGCGAGCTGTGAGTGTGAGCGGAGGCTGACGGGAGCCG 1125
QY 947 -----TGGCGGAGAGAACCTGGGCGCTGT 974
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1126 CCGGCTCTGCGCGCGCTGTGACAGCTGACCTTAAGCGAGAGCGCGCGCGCTA 1185
QY 975 CCGGCGCTGACCGCGGAGAGAGCTGTGTGAGCAATGCTCTGCGCTCTTGTCTAGC 1034
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1186 CCGCGCGCTACCGGCGGAGGACATTCATCAACCGGCTGTGCGCTGTGCTAGC 1245
QY 1035 GGTGTGAGAGTACACAGTGGGCGACGCGCTTTGCGGCTTGAAGACTGTCACGC 1094
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 1246 GGTATGAGAGACAGCTGTGGGCGACGCGGCTTCCGCGCTTCCGCGTGGGCGACGC 1305
QY 1095 GCTAGGCGC 1103
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Db 1306 GCTCTGCGC 1314
    ||||| |||||

RESULT 14
US-08-176-427B-1
; Sequence 1, Application US/08176427B
; Patent No. 5789543
; GENERAL INFORMATION:
; APPLICANT: Ingham, Phillip W.
; APPLICANT: Mckahon, Andrew P.
; APPLICANT: Tabin, Clifford J.
; TITLE OF INVENTION: Vertebrate Embryonic Pattern-Inducing
; NUMBER OF SEQUENCES: 33
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: LAHYE & COCKFIELD
; STREET: 60 State Street
; CITY: Boston
; STATE: MA
; COUNTRY: USA
; ZIP: 02109
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: ASCII(text)
; CURRENT APPLICATION DATA:

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; APPLICATION NUMBER: US/08/176,427B
; FILING DATE: 30-DEC-1993
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Vincent, Matthew P.
; REGISTRATION NUMBER: 36,709
; REFERENCE/DOCKET NUMBER: HMI-006
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (617) 227-7400
; TELEFAX: (617) 227-5941
; INFORMATION FOR SEQ ID NO: 1:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 1277 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: both
; TOPOLOGY: linear
; MOLECULE TYPE: cDNA
; FEATURE:
; NAME/KEY: CDS
; LOCATION: 1..1277
US-08-176-427B-1

Query Match          32.0%; Score 381.4; DB 1; Length 1277;
Best Local Similarity 62.0%; Pred. No. 1,9e-71;
Matches 692; Conservative 0; Mismatches 386; Indels 39; Gaps 4;

QY 109 CGCAGAGCTGCTGCGCTACTCTACAGCAATTTTGCCCGGCTGCGCAGAGGAC 168
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 115 CCCAAAGAGTGAACCCGCTTATAGCTATAGCAGCTTATTCCTCAATGTCGAGAGAAC 174
QY 169 CTGGGCGCGAGTGGCGGACAGCGGAGGAGGCTGCAAGGGGCTCCGAGCGCTCCGGGAC 228
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 175 CTAGGGCGCACTGGAAGATATGAAGAGATCAAGAAATCTCGAGATTTAAAGAA 234
QY 229 CTCGTGCCCAATCAACCCCGAGCATATCTCAAGATGAGAGACAGTGGAGCCGAC 288
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Db 235 CTAAACCCCAATTTCAACCCCGAGCATATTTTAAAGATGAGAGAACAGCGAGCTGAC 294
QY 289 CGCTGATGACCGAGCGTGTGAGAGAGGAGTGAACCTTTGGCAATTCCTGATGAAAC 348
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Db 295 AGACTGATGACTCAGCGCTGCAAGAGCAAGCTGAATGCCCTGCGAGATCTCGGTATGAAAC 354
QY 349 ATGTGGCGCGGAGTGGCGCTTACAGTACTAGAGGCTGGGAGCGAGACGGCCACAGCT 408
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 355 CAGTGGCGCGGAGTGAAGTGTGGGTGACCGAGGGCTGGGAGCGAGATGGCATCTGCC 414
QY 409 CAGGATTCACCTCAGTGAAGGCGCTGTGAGATCACTACGTCGACCGGACCGC 468
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Db 415 GAGGATTCGCTGACATGAGAGGTGCGCGCTGAGACATCAACAGTGGAGTGGAGCCG 474
QY 469 AACAAATATGAGTGTGCGCGCGCTGCACTGAGAGCGGCGCTGCACTGGGTACTAC 528
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 475 AGCAATGATGAGTGTGCGCGCGCTGCGCGCTGAGGCGGCTTCACTGGGTACTAC 534
QY 529 GAGTCCGCAACAGCACTGCTGCTCAAACTGATTAATCTACTGCGGTCCGGGCG 588
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 535 GAGTCCAAAGGCGCACTGCTGCTCAAACTGATTAATCTACTGCGGTCCGGGCG 594
QY 589 GCGGCTGCTTCCGGGAAATGCAACTGTGCGCGCTGTGAGACGCGGAGGAAAGGGCT 648
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 595 GAGAGTGTCTTCCCTGCTGACGACAGTGTGAGTGTGAGAGGACCAACCACTGCTG 654
QY 649 CGGAGACTGACCGCGAGAGAGTGGTTTGGCGCGGCTGAGCGCGGCTGGTGGCC 708
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 655 AAGGACTGAGGCGCTTGGGAGCGGCTGCTGCTGCTGAGCGGAGCGCGGCTGCTAC 714
QY 709 ACGCCGTGCTGCTTCTGAGACCGGAGCTGACAGCGCGGCTTATTTGTGCTGTG 768
    ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 715 AGTACTTCTTCACTTCTGACGCGGATGAGACAGCTCCGAAAGCTTCTTACGTATC 774
QY 769 GAGACGAGTGGGCTGACAGCAAACTTGTCTGACGCGCGCTGGGACGCTGGTTGGCGCT 828
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Db 775 GAGAGCGGCGAGCCCGGCGGCGGCTGCTACTGACGCGCGCCACCTGCTTTGTGTGCC 834
Qy 829 CGAGGGCCGCGCGCGCGCGGACGCG-ACCTTGACCGGCTGTTCGCGCGC----- 876
Db 835 CCCCAGACACACAGTGGAGGCGACAGGGGTCACACAGTGGCGGACGCTCTTTCGCCAGC 894
Qy 877 -----CGGCTACGCGCTGGGGAAGTGTGCTGTGCGCGCCCGCGGGGATCGCTTCGCGCA 930
Db 895 AACGTGAACCTGGCCCAACGTGTGTGTGTGGGAGAGGGGGAGAGAGTGTGTGCGCG 954
Qy 931 GCGCGGCGCGCGCGTGGC-----GCGGAGAGAACCGGTGGGCTGTTCGCCGCGCTACAC 987
Db 955 GCGTGTGTACAGCGCTCTCATTTGCGGAGAGAGGCGTCCGAGCCATCCGCCACACAC 1014
Qy 988 GCGACGCGGACGCTGTGTGTAACGATGTCTGTGCGCTTTGTGTACCGGGTTGTGAGACT 1047
Db 1015 GCGCAGGCGACCATCTCTATCAACCGGGGTGTGGCTCTGTGTACGCGCTCATCGAGAG 1074
Qy 1048 CACCAAGTGGCGCACCGCGCTTTTGGCCCTTGAGACTGTCTACAGCGCGCTAGGGCGCTG 1107
Db 1075 CACAGTTGGGCCATTTGGGCTTTCGACCATTCGCTTGGCTCAGGAGGCTGTGGCGCGC 1134
Qy 1108 C-----TCCCGCGCGGCGCGCGCTTCAGCGCGCTGCTGCACTGTGCTATGATTTGAC 1149
Db 1135 CTCTGCGCGAGATGGGCGCATCCCTACTGCGCGCACACACACACACATGCTCATTTGATC 1194
Qy 1150 TCTCGGCTCTCTACCGGCTTAGCGAGAGACTATGG 1186
Db 1195 TCACGGCTCTCTACCGGCTAGCGGACGCTGGTGTGTG 1231

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RESULT 15
US-08-356-060A-1
: Sequence 1, Application US/08356060A
: Patent No. 5844079
:
: GENERAL INFORMATION:
: APPLICANT: Ingham, Phillip W.
: APPLICANT: McMahon, Andrew P.
: APPLICANT: Tablin, Clifford J.
: TITLE OF INVENTION: Vertebrate Embryonic Pattern-Inducing
: NUMBER OF SEQUENCES: 47
: CORRESPONDENCE ADDRESS:
: ADDRESS: LAHIVE & COCKFIELD
: STREET: 60 State Street
: CITY: Boston
: STATE: MA
: COUNTRY: USA
: ZIP: 02109
:
: COMPUTER READABLE FORM:
: MEDIUM TYPE: Floppy disk
: COMPUTER: IBM PC compatible
: OPERATING SYSTEM: PC-DOS/MS-DOS
: SOFTWARE: ASCII(text)
:
: CURRENT APPLICATION DATA:
: APPLICATION NUMBER: US/08/356,060A
: FILING DATE: 14-DEC-1994
: CLASSIFICATION: 435
: PRIOR APPLICATION DATA:
: APPLICATION NUMBER: US 08/176,427
: FILING DATE: 30-DEC-1993
: ATTORNEY/AGENT INFORMATION:
: NAME: Vincent, Matthew P.
: REGISTRATION NUMBER: 36,709
: REFERENCE/DOCKET NUMBER: HMI-006CP
: TELECOMMUNICATION INFORMATION:
: TELEPHONE: (617) 227-7400
: TELEFAX: (617) 227-5941
:
: INFORMATION FOR SEQ ID NO: 1:
: SEQUENCE CHARACTERISTICS:
: LENGTH: 1277 base pairs
: TYPE: nucleic acid
: STRANDEDNESS: both

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: TOPOLOGY: linear
: MOLECULE TYPE: cDNA
: FEATURE:
: NAME/KEY: CDS
: LOCATION: 1..1275
: US-08-356-060A-1

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Query Match 32.0%; Score 381.4; DB 2; Length 1277;
Best Local Similarity 62.0%; Pred No. 1.9e-71;
Matches 692; Conservative 0; Mismatches 386; Indels 39; Gaps 4;

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Qy 109 CCGCAAGCACTGTGCGGCTACTTACAAAGATTTGTGCGCGGCTGCGAGCGGAC 168
Db 115 CCGCAAAAGCTACCGCGGTACTATATAAGAGTTTATTTCCAAATGTGGCAAGAAAGC 174
Qy 169 CTGGGCGCGAGTGGGCGACGAGAGGAGGTTGGCAAGGGGCTCCGAGCGCTTCCGGAC 228
Db 175 CTAGGGGCGCAGTGGAAAGATATGAGGGAATCACAGAACTCCGAGAGATTTAAAGAA 234
Qy 229 CTGTCGCCCACTACACCCGACATCATCTCAAGATGAGAGACAGTGGAGCCGAC 288
Db 235 CTAAACCCCAATTAACACCTTACATTTATTTAAAGATGAAGAAACAGGAGCTGAC 294
Qy 289 CGCTGATGACCGAGCGTTTGAAGAGAGGTAAGCGCTTGGCCATTGCCGTGATGAC 348
Db 295 ACAGTATGATGACGACGCGTGCAGAGCAAGCTGAATGCCCTGCGATCTCGGTGATGAC 354
Qy 349 ATGTGCGCGGAGTGGCTTACGATGACTGAGGCTGGGACAGAGAGAGGCTACACGCT 408
Db 355 CAGTGGCGCGGGGTGAAGCTGGGGTGAACGAGGGCTGGAGAGAGATGGCCATCTCC 414
Qy 409 CAGATTCACTACCTACGAGAGGCGGCTGTGGACATCACTACGCTGACCGGACGCG 468
Db 415 GAGGATGCTCTACTACGAGGCTGCGCGCTGGACATCACTACGCTGAGTGGGACGCG 474
Qy 469 AACAGTATGGTGTCTGCGCGCGCTCGCATGGAAGCGCGCTTGACTGGCTACTAC 528
Db 475 ACCAATGAGGAATCTGGCGCGCGCTCGCGCGTGAAGCGCGCTTGACTGGCTACTAC 534
Qy 529 GAGTCCCGCAACACGCTCAGCTGTGCGTCAAGAGTGAATCACTACTGGGCTCCGGCG 588
Db 535 GAGTCCAGGCGCGCATCTCAGCTGTGCGTCAAGAGGAAGAACTGAGTGGACGCAATCA 594
Qy 589 GCGGCTGCTTTCGCGGAATGCACTGTGCGCTGTGGAGCGGACGGAAGGCGCT 648
Db 595 GAGGCTGCTTTCGCGTGTGCTCAGCCACAGTGCATCTGAGACATGAGACGCAACGCTG 654
Qy 649 CGGAACTGACACCGCGAGACTGGGTTTGGCGCGCATGCTGACGCCCGGCTGCGCC 708
Db 655 AAGGACTGAGCGCTGGGAGCGCGTGTGCTGTGACGCGGAGCGCGCGCTGCTTAC 714
Qy 709 AGCGCGGTCTGTCTTCTGTGACCGGAGCTGACGCGCGCGGCTTCAATTTGTGCTG 768
Db 715 AGTGAATCTCTACCTTCTCTGACCGGATGACAGCTCCGGAAGCTCTTCTACTATAC 774
Qy 769 GAGACGAGTGGCTTCCACGCAAACTGTGTACAGCGCTTGGACACTGTGTTCCGCT 828
Db 775 GAGAGCGGCGACCGCGGCGCGGCTGTGCTGAGAGGCGCGCACCTGTCTTTTGGCG 834
Qy 829 CGAGGCGCGCGCGCGCGCGAGCG-ACCTTGACACCGGTGTTCGCGCG----- 876
Db 835 CCCCAGACACACAGTGGAGGCGCACAGGGTCCACAGTGGCGGAGCGCTTTCGCCAGC 894
Qy 877 -----CGGCTACGCGCTGGGAGCTCGGCTGGGCGCGCGGGGAGAGTGTGTGGGCA 930
Db 895 AACGTGAACCTGGCGCAACGTGTATGTGTGGCGAGGCGGCGGACAGAGTGTGTGCG 954
Qy 931 GCGCGCTGCGCGCTGTGTGCG-----GCGGAGAGAACCGTGGGCTTTGCGCGCTACAC 987
Db 955 GCGTGTGTACAGCGCTCTCATTTGCGGAGAGGAGGCTCCGAGGCTTACGCCCATCTAC 1014
Qy 988 GCGACGCGGACGCTGTGTGTAACGATGTCTGCGCTTGTCTACGCGGTTCTGAGAGT 1047

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Db 1015 GCCCAGGGCACCATCTCAATCAACCGGGTGTGTGCTCCTCTACGCGCCGTCATCGAGAG 1074
QY 1048 CACCACTGGGCGACCGCGCTTTGGCCCCCTTGAGACTGCTGCACGCGCTAGGGGCGCTG 1107
Db 1075 CACAGTTGGGCGCCATTGGGCGCTTCGACCAATTCGCTTGGCTCAGGGGCTGTGGCGCC 1134
QY 1108 C-----TCCCCGGGCGCGGTCACGCCGACTGGCATGATGTGTAC 1149
Db 1135 CTCTGCCCAGATGGGGCATCCCTACTGCCGCCACCAACCACTGGCATCATTGTGTAC 1194
QY 1150 TCTCGGCTCCTCTACCGCTTAGCGGAGAGACTACTG 1186
Db 1195 TCACGGGCTCCTCTACCGCATCGGAGCTGGGTGCTG 1231
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Job time: 2306 sec



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GenCore version 4.5  
Copyright (c) 1993 - 2000 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: September 7, 2001, 14:00:54 : Search time 26.04 Seconds  
(without alignments)  
313.125 Million cell updates/sec

Title: US-08-900-220C-17

Perfect score: 2088

Sequence: 1 MALLTNLLPCLALLALPA.....PTGMHWYSRLLYRLAEELLG 396

Scoring table:

BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 197339 seqs, 20590346 residues

Total number of hits satisfying chosen parameters: 197339

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Maximum Match 0%

Listing first 45 summaries

Database :

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2: /cgn2\_6/ptodata/2/1aa/5B\_COMB.pep:\*  
3: /cgn2\_6/ptodata/2/1aa/5A\_COMB.pep:\*  
4: /cgn2\_6/ptodata/2/1aa/5B\_COMB.pep:\*  
5: /cgn2\_6/ptodata/2/1aa/PCTUS\_COMB.pep:\*  
6: /cgn2\_6/ptodata/2/1aa/Backfilest1.pep:\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2008	96.2	396	1	US-08-176-427B-4 Sequence 4, App1
2	2008	96.2	396	2	US-08-356-060A-9 Sequence 9, App1
3	2008	96.2	396	4	US-08-460-900C-9 Sequence 9, App1
4	1217	58.3	437	1	US-08-176-427B-8 Sequence 8, App1
5	1217	58.3	437	2	US-08-356-060A-11 Sequence 11, App1
6	1217	58.3	437	4	US-08-460-900C-11 Sequence 11, App1
7	1214	58.1	437	3	US-08-946-329A-20 Sequence 20, App1
8	1214	58.1	437	4	US-08-946-329A-20 Sequence 20, App1
9	1214	58.1	437	5	US-08-729-743A-19 Sequence 19, App1
10	1214	58.1	437	5	PCT-US95-15463-20 Sequence 20, App1
11	1203	57.6	437	5	PCT-US95-15923-20 Sequence 20, App1
12	1203	57.6	437	4	US-08-757-230A-2 Sequence 20, App1
13	1203	57.6	437	4	US-08-757-230A-9 Sequence 9, App1
14	1198	57.4	437	5	PCT-US95-02315-2 Sequence 2, App1
15	1198	57.4	437	1	US-08-176-427B-2 Sequence 2, App1
16	1198	57.4	437	2	US-08-356-060A-8 Sequence 8, App1
17	1198	57.4	437	4	US-08-460-900C-8 Sequence 8, App1
18	1177	56.4	462	1	US-08-748-591-4 Sequence 4, App1
19	1177	56.4	462	1	US-08-748-591-9 Sequence 9, App1
20	1177	56.4	475	2	US-08-356-060A-13 Sequence 13, App1
21	1177	56.4	475	4	US-08-460-900C-13 Sequence 13, App1
22	1158	55.5	425	3	US-08-946-329A-19 Sequence 19, App1
23	1158	55.5	425	4	US-08-567-357A-19 Sequence 19, App1
24	1158	55.5	425	4	US-08-729-743A-19 Sequence 19, App1
25	1158	55.5	425	5	PCT-US95-15463-19 Sequence 19, App1
26	1158	55.5	425	5	PCT-US95-15923-19 Sequence 19, App1
27	1154	55.3	416	3	US-08-946-329A-17 Sequence 17, App1

28	1154	55.3	416	4	US-08-567-357A-17 Sequence 17, App1
29	1154	55.3	416	5	US-08-729-743A-17 Sequence 17, App1
30	1154	55.3	416	5	PCT-US95-15463-17 Sequence 17, App1
31	1154	55.3	416	5	PCT-US95-15923-17 Sequence 17, App1
32	1126	53.6	411	4	US-08-460-900C-10 Sequence 10, App1
33	1120	53.6	418	3	US-08-946-329A-18 Sequence 18, App1
34	1120	53.6	418	4	US-08-567-357A-18 Sequence 18, App1
35	1120	53.6	418	4	US-08-729-743A-18 Sequence 18, App1
36	1120	53.6	418	4	US-08-757-230A-7 Sequence 7, App1
37	1120	53.6	418	5	PCT-US95-15463-18 Sequence 18, App1
38	1120	53.6	418	5	PCT-US95-15923-18 Sequence 18, App1
39	1069	51.2	418	1	US-08-176-427B-10 Sequence 10, App1
40	1069	51.2	418	2	US-08-356-060A-12 Sequence 12, App1
41	1069	51.2	418	4	US-08-460-900C-12 Sequence 12, App1
42	956.5	45.8	336	1	US-08-176-427B-6 Sequence 6, App1
43	956.5	45.8	336	2	US-08-356-060A-10 Sequence 10, App1
44	951	45.5	471	1	US-08-176-427B-11 Sequence 11, App1
45	951	45.5	471	4	US-08-460-900C-34 Sequence 34, App1

#### ALIGNMENTS

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RESULT 1
US-08-176-427B-4
; Sequence 4, Application US/08176427B
; Patent No. 5789543
; GENERAL INFORMATION:
; APPLICANT: Ingham, Phillip W.
; APPLICANT: McMahon, Andrew P.
; APPLICANT: Tablin, Clifford J.
; TITLE OF INVENTION: Vertebrate Embryonic Pattern-Inducing
; TITLE OF INVENTION: Proteins and Uses Related Thereto
; NUMBER OF SEQUENCES: 33
; CORRESPONDENCE ADDRESSES:
; ADDRESSEE: LAHIVE & COCKFIELD
; STREET: 60 State Street
; CITY: Boston
; STATE: MA
; COUNTRY: USA
; ZIP: 02109
; COMPUTER READABLE FORM:
; MEDIUM TYPE: floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: ASCII(text)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/176,427B
; FILING DATE: 30-DEC-1993
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Vincent, Matthew P.
; REGISTRATION NUMBER: 36,709
; REFERENCE/DOCKET NUMBER: HMI-006
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (617) 227-7400
; TELEFAX: (617) 227-5941
; INFORMATION FOR SEQ ID NO: 4:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 396 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; US-08-176-427B-4

Query Match 96.2%; Score 2008; DB 1; Length 396;
Best Local Similarity 96.5%; Pred. No. 2, 7e-214;
Matches 382; Conservative 6; Mismatches 8; Indels 0; Gaps 0;

QY 1 MALLTNLLPCLALLALPAQSCGPGRGPGVGRRRYARKQVPLLYKQFVGVDPERTIGAS 60
Db 1 MALLTNLLPCLALLALPAQSCGPGRGPGVGRRRYARKQVPLLYKQFVGVDPERTIGAS 60
```



```
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 832-1000
TELEFAX: (617) 832-7000
INFORMATION FOR SEQ ID NO: 9:
SEQUENCE CHARACTERISTICS:
LENGTH: 396 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-460-900C-9

Query Match          96.2%; Score 2008; DB 4; Length 396;
Best Local Similarity 96.5%; Pred. No. 2.7e-214;
Matches 382; Conservative 6; Mismatches 8; Indels 0; Gaps 0;

QY 1 MALTLNPLICLALLALPAQSCGPGRGVRRRYARKQLVPLLYKQFVGVPERTLGAS 60
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
Db 1 MALPASLPLICLALLALSAQSCGPGRGVRRRYARKQLVPLLYKQFVSMPTERTLGAS 60

QY 61 GPAEGRVARSGERFDLYPNYNPDIIFKDEENSGADRLMTERCKERYNALAIANNMPPG 120
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
Db 61 GPAEGRVARSGERFDLYPNYNPDIIFKDEENSGADRLMTERCKERYNALAIANNMPPG 120

QY 121 VRLRVTEGMDDEGHHADSLHYEGRALDITTSDBRNNKYGLLARLAVEAGFDWYYESRN 180
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
Db 121 VRLRVTEGMDDEGHHADSLHYEGRALDITTSDBRNNKYGLLARLAVEAGFDWYYESRN 180

QY 181 HHVSVKADNSLAVRAGGCEPFGNATVRLMSGERKGLRELHSGDWVLAADASGRVPTPV 240
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
Db 181 HHVSVKADNSLAVRAGGCEPFGNATVRLMSGERKGLRELHSGDWVLAADASGRVPTPV 240

QY 241 LFLDRDLQRRASVAVETEPPRKLLTPWHLVFAANGPAPAGDPAVPARRLRAGDSV 300
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
Db 241 LFLDRDLQRRASVAVETEPPRKLLTPWHLVFAANGPAPAGDPAVPARRLRAGDSV 300

QY 301 LAEGDALRPARARVAREEAVGFAPLTAHGTLLVNDVLASCAVAVESHOMHRAAPL 360
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
Db 301 LAEGDALRPARARVAREEAVGFAPLTAHGTLLVNDVLASCAVAVESHOMHRAAPL 360

QY 361 RLHLALGALLPGAVOPTGMHWSRLLYRLAEELG 396
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
Db 361 RLHLALGALLPGAVOPTGMHWSRLLYRLAEELG 396

RESULT 4
US-08-176-427B-8
; Sequence 8, Application US/08176427B
; Patent No. 5789543
; GENERAL INFORMATION:
; APPLICANT: Ingham, Phillip W.
; APPLICANT: McMahon, Andrew P.
; APPLICANT: Tablin, Clifford J.
; TITLE OF INVENTION: Vertebrate Embryonic Pattern-Inducing
; NUMBER OF SEQUENCES: 33
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: LAHIVE & COCKFIELD
; STREET: 60 State Street
; CITY: Boston
; STATE: MA
; COUNTRY: USA
; ZIP: 02109
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: ASCII(text)
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/176,427B
; FILING DATE: 30-DEC-1993
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
```

```
NAME: Vincent, Matthew P.
REGISTRATION NUMBER: 36,709
REFERENCE/DOCKET NUMBER: HMT-006
TELECOMMUNICATION INFORMATION:
TELEPHONE: (617) 227-7400
TELEFAX: (617) 227-5941
INFORMATION FOR SEQ ID NO: 8:
SEQUENCE CHARACTERISTICS:
LENGTH: 437 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-176-427B-8

Query Match          58.3%; Score 1217; DB 1; Length 437;
Best Local Similarity 58.7%; Pred. No. 1.9e-126;
Matches 249; Conservative 53; Mismatches 82; Indels 40; Gaps 12;

QY 7 LPLPLCCLALLA-----LPAQSCGPGRGVRRRYARKQLVPLLYKQFVGVPERTLGASG 61
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
Db 4 LLARCFVLIIASSLIVCGPLACGPGRG-FGKRPRPK-LPLPLVYKQFIPVVAERTKLGASG 61

QY 62 PAEGRVARSGERFDLYPNYNPDIIFKDEENSGADRLMTERCKERYNALAIANNMPPG 121
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
Db 62 RYEGKITRNSERKELTPNNYNPDIIFKDEENTGADRLMTERCKDKNALAIANNMPPG 121

QY 122 RLRVTEGMDDEGHHADSLHYEGRALDITTSDBRNNKYGLLARLAVEAGFDWYYESRNH 181
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
Db 122 RLRVTEGMDDEGHHSESLHYEGRAVDITTSDBRNSKYGLLARLAVEAGFDWYYESKAH 181

QY 182 VHYSVKADNSLAVRAGGCEPFGNATVRLMSGERKGLRELHSGDWVLAADASGRVPTPV 241
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
Db 182 IHOSVKRNSVNAKSGGCEPFGSATVHLEOGTKLVKDLRGDRLAADGGRLLYSDFLT 241

QY 242 FLDRDLQRRASVAVETEPPRKLLTPWHLVFAA-----GPAPAGDPAVPARRLRAG 297
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
Db 242 FLDRDEBAKVFYIETLERRELLTAHLTVAPANDSGPTPGP---SALRASRYRPG 298

QY 298 DSVLA---PGGD-ALRPARVARYA-REAVGVAPLTAHGTLLVNDVLASCAVAVESHOW 352
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
Db 299 QRYVVAVERGDRRLLPAAVHVTYLRREAGAVAPLTAHGTLLINRVLASCAVAVIESHW 358

QY 353 AHRAFAPLRLIHA-LGALLP-----GGAV-----OPT-GMHWYSLRYRLA 391
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
Db 359 AHRAFAPLRLIHALALAPARDGGSISIPAAQSAFEARGAEPYAGIHWSOLLYHIG 418

QY 392 EELL 395
   |||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||
Db 419 TWLL 422

RESULT 5
US-08-356-060A-11
; Sequence 11, Application US/08356060A
; Patent No. 5844079
; GENERAL INFORMATION:
; APPLICANT: Ingham, Phillip W.
; APPLICANT: McMahon, Andrew P.
; APPLICANT: Tablin, Clifford J.
; TITLE OF INVENTION: Vertebrate Embryonic Pattern-Inducing
; NUMBER OF SEQUENCES: 47
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: LAHIVE & COCKFIELD
; STREET: 60 State Street
; CITY: Boston
; STATE: MA
; COUNTRY: USA
; ZIP: 02109
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: IBM PC compatible
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OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: ASCII(text)  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/356,060A  
FILING DATE: 14-DEC-1994  
CLASSIFICATION: 435  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 08/176,427  
FILING DATE: 30-DEC-1993  
ATTORNEY/AGENT INFORMATION:  
NAME: Vincent, Matthew P.  
REGISTRATION NUMBER: 36,709  
REFERENCE/DOCKET NUMBER: HMI-006CP  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (617) 227-7400  
TELEFAX: (617) 227-5941  
INFORMATION FOR SEQ ID NO: 11:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 437 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
US-08-356-060A-11

Query Match 58.3%; Score 1217; DB 2; Length 437;  
Best Local Similarity 58.7%; Pred. No. 1.9e-126;  
Matches 249; Conservative 53; Mismatches 82; Indels 40; Gaps 12;

QY 7 LRLPCLALLA-----LPAQSGGPGRGPRGRRRYARKOLVPLLYKQFVGVDEERTLGASG 61  
DB 4 LLARCFELVTLASSLLVCPGLACGPGRG-FGKRRHPRK-LTPLATYKOFIPVNAEKTGASG 61  
QY 62 PAEGRVARGSERFRDLVPYNYNDIIFKDEENSGADRLMTERCKERYNALAIYVMNMWPGV 121  
DB 62 REGKTRNSERFKELTPRYNPDIIIFKDEENSGADRLMTERCKERYNALAIYVMNMWPGV 121  
QY 122 RLRTVEGMEDEGHHAODSLHYEGRALDITTSRDRNKYGLLARLAVEAGFDWVYVESRNH 181  
DB 122 RLRTVEGMEDEGHHAODSLHYEGRALDITTSRDRNKYGLLARLAVEAGFDWVYVESRNH 181  
QY 182 VHVSVKADNSLAVRAGGCPFGNATYRLMNGEKKGLRELHGRGWVYLAADSGRVVTPVLL 241  
DB 182 IHCSVKAENSVAKSGCGPFGSATYHLDEGGTKLVKDLRPGGRVYLAADSGRLKLSDFLT 241  
QY 242 FLDRDLORASFAVAETEMPRKLLTPWHLYFAA-----RGPAPAGDPAPVFAARLRAG 297  
DB 242 FLDRDLORASFAVAETEMPRKLLTPWHLYFAA-----RGPAPAGDPAPVFAARLRAG 297  
QY 298 DSVLA---PGGD-ALRPARAVANA-REEAVGVAPLTAHGTLLVNDVLAACVAVLESHQW 352  
DB 298 DSVLA---PGGD-ALRPARAVANA-REEAVGVAPLTAHGTLLVNDVLAACVAVLESHQW 352  
QY 353 AHRAPAPRLHLHA-LGALLP-----GGAV-----QPT-GHMYSRLLYRLA 391  
DB 353 AHRAPAPRLHLHA-LGALLP-----GGAV-----QPT-GHMYSRLLYRLA 391  
QY 392 EELL 395  
DB 419 TWLL 422

RESULT 6  
US-08-460-900C-11  
Sequence 11, Application US/08460900C  
Patent No. 6165747  
GENERAL INFORMATION:  
APPLICANT: Ingham, Phillip W.  
APPLICANT: McMahon, Andrew P.  
APPLICANT: Tablin, Clifford J.  
APPLICANT: Bumcrot, David A.  
APPLICANT: Marti-Gorostiza, Elisa  
TITLE OF INVENTION: Vertebrate Embryonic Pattern-Inducing

TITLE OF INVENTION: Proteins and Uses Related Thereto  
NUMBER OF SEQUENCES: 62  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: FOLEY, HOAG & ELIOT LLP  
STREET: One Post Office Square  
CITY: Boston  
STATE: MA  
COUNTRY: USA  
ZIP: 02109  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/460,900C  
FILING DATE: 5-JUNE-1995  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 08/435,093  
FILING DATE: 4-MAY-1995  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 08/356,060  
FILING DATE: 14-DEC-1994  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 08/176,427  
FILING DATE: 30-DEC-1993  
ATTORNEY/AGENT INFORMATION:  
NAME: Vincent, Matthew P.  
REGISTRATION NUMBER: 36,709  
REFERENCE/DOCKET NUMBER: HMI-006.05  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (617) 832-1000  
TELEFAX: (617) 832-7000  
INFORMATION FOR SEQ ID NO: 11:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 437 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
US-08-460-900C-11

Query Match 58.3%; Score 1217; DB 4; Length 437;  
Best Local Similarity 58.7%; Pred. No. 1.9e-126;  
Matches 249; Conservative 53; Mismatches 82; Indels 40; Gaps 12;

QY 7 LRLPCLALLA-----LPAQSGGPGRGPRGRRRYARKOLVPLLYKQFVGVDEERTLGASG 61  
DB 4 LLARCFELVTLASSLLVCPGLACGPGRG-FGKRRHPRK-LTPLATYKOFIPVNAEKTGASG 61  
QY 62 PAEGRVARGSERFRDLVPYNYNDIIFKDEENSGADRLMTERCKERYNALAIYVMNMWPGV 121  
DB 62 REGKTRNSERFKELTPRYNPDIIIFKDEENSGADRLMTERCKERYNALAIYVMNMWPGV 121  
QY 122 RLRTVEGMEDEGHHAODSLHYEGRALDITTSRDRNKYGLLARLAVEAGFDWVYVESRNH 181  
DB 122 RLRTVEGMEDEGHHAODSLHYEGRALDITTSRDRNKYGLLARLAVEAGFDWVYVESRNH 181  
QY 182 VHVSVKADNSLAVRAGGCPFGNATYRLMNGEKKGLRELHGRGWVYLAADSGRVVTPVLL 241  
DB 182 IHCSVKAENSVAKSGCGPFGSATYHLDEGGTKLVKDLRPGGRVYLAADSGRLKLSDFLT 241  
QY 242 FLDRDLORASFAVAETEMPRKLLTPWHLYFAA-----RGPAPAGDPAPVFAARLRAG 297  
DB 242 FLDRDLORASFAVAETEMPRKLLTPWHLYFAA-----RGPAPAGDPAPVFAARLRAG 297  
QY 298 DSVLA---PGGD-ALRPARAVANA-REEAVGVAPLTAHGTLLVNDVLAACVAVLESHQW 352  
DB 298 DSVLA---PGGD-ALRPARAVANA-REEAVGVAPLTAHGTLLVNDVLAACVAVLESHQW 352  
QY 353 AHRAPAPRLHLHA-LGALLP-----GGAV-----QPT-GHMYSRLLYRLA 391  
DB 353 AHRAPAPRLHLHA-LGALLP-----GGAV-----QPT-GHMYSRLLYRLA 391

OY 392 EELL 395  
DB 419 TWLL 422

## RESULT 7

US-08-946-329A-20  
; Sequence 20, Application US/08946329A

; Patent No. 6057091

; GENERAL INFORMATION:

; APPLICANT: Beachy, Phillip A.

; APPLICANT: Porter, Jeffrey A.

; TITLE OF INVENTION: NOVEL HEDGEHOG-DERIVED POLYPEPTIDES

; NUMBER OF SEQUENCES: 109

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Fish & Richardson P.C.

; STREET: 4225 Executive Square, Suite 1400

; CITY: La Jolla

; STATE: CA

; COUNTRY: USA

; ZIP: 92037

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Diskette

; COMPUTER: IBM Compatible

; OPERATING SYSTEM: Windows 95

; SOFTWARE: FASTSEQ for Windows Version 2.0b

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/946,329A

; FILING DATE: 07-OCT-1997

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: 60/061,323

; FILING DATE: 07-OCT-1996

; APPLICATION NUMBER: 08/729,743

; FILING DATE: 10-JUL-1996

; APPLICATION NUMBER: 08/567,357

; FILING DATE: 04-DEC-1995

; APPLICATION NUMBER: 08/349,498

; FILING DATE: 02-DEC-1994

; ATTORNEY/AGENT INFORMATION:

; NAME: Haile, Lisa A.

; REGISTRATION NUMBER: 38,347

; REFERENCE/DOCKET NUMBER: 07265/140001

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 619/678-5070

; TELEFAX: 619/678-5099

; INFORMATION FOR SEQ ID NO: 20:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 437 amino acids

; TYPE: amino acid

; TOPOLOGY: linear

; MOLECULE TYPE: protein

US-08-946-329A-20

Query Match 58.1%; Score 1214; DB 3; Length 437;  
Best Local Similarity 58.5%; Pred. No. 4,1e-126;  
Matches 248; Conservative 54; Mismatches 82; Indels 40; Gaps 12;

OY 7 LPLCLALLA-----LPAQSCGPGRGVGRRRYARKOLVPLLYKQFVGVPERTLGASG 61  
DB 4 LARCLVLIASSLLVCPGLACGPGRG-FGKRRHPKK-LTPLAYKQFIPVNAKKTGASG 61

OY 62 PARGVARGSERFDLPVNPDIIFKDENSGADRLMTERCKERNVNAIAVMNMPGV 121  
DB 62 RREGKTRNSERKELTPVNPDIIFKDENSGADRLMTERCKERNVNAIAVMNMPGV 121

OY 122 RLKRTGEMDEGHHADSLHYEGRALDITTSRDRNKKYGLIARLAVAGFDWVYESRHH 181  
DB 122 KLVETGEMDEGHHSESLHYEGRAVDITTSRDRSKYGLIARLAVAGFDWVYESKHAH 181

OY 182 VHSVYADNSLAVRAGGCPFGNATVPLNGSERGLRELHGRGVNLAADSGRVVPPVLL 241  
DB 182 VHSVYADNSLAVRAGGCPFGNATVPLNGSERGLRELHGRGVNLAADSGRVVPPVLL 241

DB 182 IHCSYKAENSVAAKSGCGPFSATVHLFEGGTIKLVKDLRPGDRLAADDGRLYSDFLT 241  
OY 242 FLDRLQRRASVAVTEPMPKLLTPMHLVFAA-----RGAPRAGDAPVFAARLRAG 297  
DB 242 FLDRGAKRVYVYETLEPRERLLTAAHLFVAPHNDGPGP---SALFASVVRG 298  
OY 298 DSVLA---PGCD-ALRPAVARVA-REAVGVAPLTAGTLLVNDVLAACVAVLESHOM 352  
DB 299 QRYVYVAERGGBRLLPAVHSTVLRBEAGAVAPLTAGTLLINRYLASCVAVIEHSM 358  
OY 353 AHRAPAPRLILHA-LGALLP-----GGAV-----QPT-GHWYSRLLYRLA 391  
DB 359 AHRAPAPRLILHAALAPARDGGGGSIPAAQSATRGAEPTAGIHWYSQLLYHIG 418  
OY 392 EELL 395  
DB 419 TWLL 422

## RESULT 8

US-08-567-357A-20  
; Sequence 20, Application US/08567357A

; Patent No. 6132728

; GENERAL INFORMATION:

; APPLICANT: Beachy, Phillip A.

; APPLICANT: Moon, Randall T.

; APPLICANT: Porter, Jeffrey A.

; TITLE OF INVENTION: NOVEL HEDGEHOG-DERIVED POLYPEPTIDES

; NUMBER OF SEQUENCES: 37

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Fish & Richardson P.C.

; STREET: 4225 Executive Square, Suite 1400

; CITY: La Jolla

; STATE: CA

; COUNTRY: USA

; ZIP: 92037

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Diskette

; COMPUTER: IBM Compatible

; OPERATING SYSTEM: Windows 95

; SOFTWARE: FASTSEQ for Windows Version 2.0b

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/567,357A

; FILING DATE: 04-DEC-1995

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: 08/349,498

; FILING DATE: 02-DEC-1994

; ATTORNEY/AGENT INFORMATION:

; NAME: Haile, Lisa A.

; REGISTRATION NUMBER: 38,347

; REFERENCE/DOCKET NUMBER: 07265/080001

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 619/678-5070

; TELEFAX: 619/678-5099

; INFORMATION FOR SEQ ID NO: 20:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 437 amino acids

; TYPE: amino acid

; TOPOLOGY: linear

; MOLECULE TYPE: protein

US-08-567-357A-20  
Query Match 58.1%; Score 1214; DB 4; Length 437;  
Best Local Similarity 58.5%; Pred. No. 4,1e-126;  
Matches 248; Conservative 54; Mismatches 82; Indels 40; Gaps 12;

OY 7 LPLCLALLA-----LPAQSCGPGRGVGRRRYARKOLVPLLYKQFVGVPERTLGASG 61  
DB 4 LARCLVLIASSLLVCPGLACGPGRG-FGKRRHPKK-LTPLAYKQFIPVNAKKTGASG 61

OY 62 PARGVARGSERFDLPVNPDIIFKDENSGADRLMTERCKERNVNAIAVMNMPGV 121  
DB 62 RREGKTRNSERKELTPVNPDIIFKDENSGADRLMTERCKERNVNAIAVMNMPGV 121

OY 182 VHSVYADNSLAVRAGGCPFGNATVPLNGSERGLRELHGRGVNLAADSGRVVPPVLL 241  
DB 182 VHSVYADNSLAVRAGGCPFGNATVPLNGSERGLRELHGRGVNLAADSGRVVPPVLL 241

Db 62 RYEGKITNSRFEKLPNPNVDIIFKDEENTGADRLMTORCKDKLNALISVNMMPGV 121  
QY 122 RLRYTEGDEDEGHHQAOSLHAYEGRALDITTSRDRNKYGLLARLAVEAGFDWYYESRHH 181  
Db 122 KLRYTEGDEDEGHHSEELHAYEGRAVDITTSRDRSKYGMRLARLAVEAGFDWYYESRAH 181  
QY 182 VHSYKADNSLAVRAGCGFPGNATVRLMSGERKGLRELRHWDWVLAADASGRVPTPVLL 241  
Db 182 IHCYSKAKNSVAARSGCGFPGSATVHLEQGCKLTKDLRDPDRVLAADQGRLLYSDFLT 241  
QY 242 FLDRDLQRRASFVAVETEMPRKLLTPMHLVFAA---RGPAPAPGDFAPVFAARLRAG 297  
Db 242 FLDRDEGAKKVFYIETLEPERELLITPAHLFLVAPHNDSGPTGP---SALFASRRVRPG 298  
QY 298 DSVLA---PGGD-ALRPARVARVA-REBAGVFAPLTAHGTLLVNDVLASCYAVLESHOW 352  
Db 298 QRYVYVARGDRLRLPAVHVSYTLREBAGAVAPLTAHGTLLINRYLASCYAVIEESHW 358  
QY 353 AHRAPAPRLIHA-LGALLP-----GGAV-----OPT-GMHYSRLLYRLA 391  
Db 359 AHRAPAPRLIHALLAALAPARTDGGGGSIPAAQSATEARGAEPYAGIHWSYQLLYHIG 418  
QY 392 EELL 395  
Db 419 TWLL 422

RESULT 9  
US-08-729-743A-20  
Sequence 20 Application US/08729743A  
Patent No. 6214794  
GENERAL INFORMATION:  
APPLICANT: Beachy, Philip A.  
APPLICANT: Moon, Randall T.  
APPLICANT: Porter, Jeffrey A.  
TITLE OF INVENTION: NOVEL HEDGEHOG-DERIVED POLYPEPTIDES  
NUMBER OF SEQUENCES: 37  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Fish & Richardson P.C.  
STREET: 4225 Executive Square, Suite 1400  
CITY: La Jolla  
STATE: CA  
COUNTRY: USA  
ZIP: 92037  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Diskette  
COMPUTER: IBM Compatible  
OPERATING SYSTEM: Windows 95  
SOFTWARE: FASTSEQ for Windows Version 2.0b  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/729,743A  
FILING DATE: 07-OCT-1996  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: 08/567,357  
FILING DATE: 04-DEC-1995  
APPLICATION NUMBER: 08/349,498  
FILING DATE: 02-DEC-1994  
ATTORNEY/AGENT INFORMATION:  
NAME: Halle, Lisa A.  
REGISTRATION NUMBER: 38,347  
REFERENCE/DOCKET NUMBER: 07265/099001  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 619/678-5070  
TELEFAX: 619/678-5099  
INFORMATION FOR SEQ ID NO: 20:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 437 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
US-08-729-743A-20

Query Match 58.1%; Score 1214; DB 4; Length 437;  
Best Local Similarity 58.5%; Pred. No. 4,1e-126;  
Matches 248; Conservative 54; Mismatches 82; Indels 40; Gaps 12;

QY 7 LPLCCIALLA-----LPAOSCGRGGRGRRRRARQVLYLLTKQVPGPERTLQSG 61  
Db 4 LLARCFVLIALSSLLVCGLACGPRG-FGKRHRPKK-LTFLAYKQFIPNAEKTLLQSG 61  
QY 62 PAEGVARGSERFDLVNPNVDIIFKDEENSGADRLMTGCKRERVNALATAVNMMPGV 121  
Db 62 RYEGKITNSRFEKLPNPNVDIIFKDEENTGADRLMTORCKDKLNALISVNMMPGV 121  
QY 122 RLRYTEGDEDEGHHQAOSLHAYEGRALDITTSRDRNKYGLLARLAVEAGFDWYYESRHH 181  
Db 122 KLRYTEGDEDEGHHSEELHAYEGRAVDITTSRDRSKYGMRLARLAVEAGFDWYYESRAH 181  
QY 182 VHSYKADNSLAVRAGCGFPGNATVRLMSGERKGLRELRHWDWVLAADASGRVPTPVLL 241  
Db 182 IHCYSKAKNSVAARSGCGFPGSATVHLEQGCKLTKDLRDPDRVLAADQGRLLYSDFLT 241  
QY 242 FLDRDLQRRASFVAVETEMPRKLLTPMHLVFAA---RGPAPAPGDFAPVFAARLRAG 297  
Db 242 FLDRDEGAKKVFYIETLEPERELLITPAHLFLVAPHNDSGPTGP---SALFASRRVRPG 298  
QY 298 DSVLA---PGGD-ALRPARVARVA-REBAGVFAPLTAHGTLLVNDVLASCYAVLESHOW 352  
Db 298 QRYVYVARGDRLRLPAVHVSYTLREBAGAVAPLTAHGTLLINRYLASCYAVIEESHW 358  
QY 353 AHRAPAPRLIHA-LGALLP-----GGAV-----OPT-GMHYSRLLYRLA 391  
Db 359 AHRAPAPRLIHALLAALAPARTDGGGGSIPAAQSATEARGAEPYAGIHWSYQLLYHIG 418  
QY 392 EELL 395  
Db 419 TWLL 422

RESULT 10  
PCT-US95-15463-20  
Sequence 20 Application PC/TUS9515463  
GENERAL INFORMATION:  
APPLICANT: The Johns Hopkins University School of Medicine  
TITLE OF INVENTION: NOVEL HEDGEHOG-DERIVED POLYPEPTIDES  
NUMBER OF SEQUENCES: 20  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: Fish & Richardson P.C.  
STREET: 4225 Executive Square, Suite 1400  
CITY: La Jolla  
STATE: CA  
COUNTRY: U.S.A.  
ZIP: 92037  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.30  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: PCT/US95/15463  
FILING DATE: 01-DEC-1995  
CLASSIFICATION:  
ATTORNEY/AGENT INFORMATION:  
NAME: Halle, Lisa A.  
REGISTRATION NUMBER: 38,347  
REFERENCE/DOCKET NUMBER: 07265/080W01  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 619/678-5070  
TELEFAX: 619/678-5099  
INFORMATION FOR SEQ ID NO: 20:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 437 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: protein



PCT-US95-15463-20

Query Match 58.1%; Score 1214; DB 5; Length 437;

Best Local Similarity 58.5%; Pred. No. 4.1e-126; Matches 248; Conservative 54; Mismatches 82; Indels 40; Gaps 12;

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QY 7 LILPCLLALIA-----LPAOSCGRGPGVGRRRYARKOLVPLLYKOPVGPVPEPTLGAAG 61
  ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 4 LLARCFVLIALSSILVCPGLACGPGRG-FGKRHPK-LTPLAYKOPIPVNAEKTLGAAG 61

QY 62 PAEGRAVARGSERFDLPVNPNDIIFKDEENSGADRLMTERCKERYVALAIAVNMMPGV 121
  ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 62 RYEGKITRNSERFELPNPNPDIIFFDEENTGADRLMTORCKDLALAI SVNMMPGV 121

QY 122 RLRYTEGMDGDHHAODSLYEGRALDITTSDRRNKYGILLARLAVAGFDWYTESRNH 181
  ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 122 KLRYTEGMDGDHHAODSLYEGRALDITTSDRRNKYGILLARLAVAGFDWYTESRNH 181

QY 182 VHSYKADNSLAVRAGCGCPGNATVRLMSGERKGLRELHNGDWLAADASGRVPTPVLL 241
  ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 182 IHSYKADNSLAVRAGCGCPGNATVRLMSGERKGLRELHNGDWLAADASGRVPTPVLL 241

QY 242 FLDRDLORRASFVAETEMPPRKILLTPMHLVFAA-----RGPAAPGDFAPVFARLRAG 297
  ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 242 FLDRDLORRASFVAETEMPPRKILLTPMHLVFAA-----RGPAAPGDFAPVFARLRAG 297

QY 298 DSVLA---PGGD-ALRPARYAVA-REAVGVFAPLTAHGTLLVNDVLAICYAVLESHW 352
  ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 298 QRYVYVAERGGDRRLTPAAVHSTVTLREERAGAYAPLTAHGTLLVNDVLAICYAVLESHW 352

QY 353 AHRFAFRLRLHA-LGALLP-----GGAV-----OPT-GMHWYSLYRLA 391
  ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 353 AHRFAFRLRLHA-LGALLP-----GGAV-----OPT-GMHWYSLYRLA 391

QY 392 EELL 395
  ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 419 TWLL 422
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RESULT 11

PCT-US95-15923-20

; Sequence 20, Application PC/TUS9515923

; GENERAL INFORMATION:

; APPLICANT: The Johns Hopkins University School of Medicine, et al.

; TITLE OF INVENTION: NOVEL HEDGEHOG-DERIVED POLYPEPTIDES

; NUMBER OF SEQUENCES: 20

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Fish &amp; Richardson P.C.

; STREET: 4225 Executive Square, Suite 1400

; CITY: La Jolla

; STATE: CA

; COUNTRY: U.S.A.

; ZIP: 92037

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; OPERATING SYSTEM: IBM PC compatible

; SOFTWARE: Patent Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; FILING DATE: 04-DEC-1995

; PCT/US95/15923

; CLASSIFICATION:

; ATTORNEY/AGENT INFORMATION:

; NAME: Halile, Lisa A.

; REGISTRATION NUMBER: 38,347

; REFERENCE/DOCKET NUMBER: 07265/043MOI

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 619/678-5070

; TELEFAX: 619/678-5099

; INFORMATION FOR SEQ ID NO: 20:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 437 amino acids

; TYPE: amino acid  
; TOPOLOGY: linear  
; MOLECULE TYPE: protein  
PCT-US95-15923-20

Query Match 58.1%; Score 1214; DB 5; Length 437;

Best Local Similarity 58.5%; Pred. No. 4.1e-126; Matches 248; Conservative 54; Mismatches 82; Indels 40; Gaps 12;

```
QY 7 LILPCLLALIA-----LPAOSCGRGPGVGRRRYARKOLVPLLYKOPVGPVPEPTLGAAG 61
  ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 4 LLARCFVLIALSSILVCPGLACGPGRG-FGKRHPK-LTPLAYKOPIPVNAEKTLGAAG 61

QY 62 PAEGRAVARGSERFDLPVNPNDIIFKDEENSGADRLMTERCKERYVALAIAVNMMPGV 121
  ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 62 RYEGKITRNSERFELPNPNPDIIFFDEENTGADRLMTORCKDLALAI SVNMMPGV 121

QY 122 RLRYTEGMDGDHHAODSLYEGRALDITTSDRRNKYGILLARLAVAGFDWYTESRNH 181
  ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 122 KLRYTEGMDGDHHAODSLYEGRALDITTSDRRNKYGILLARLAVAGFDWYTESRNH 181

QY 182 VHSYKADNSLAVRAGCGCPGNATVRLMSGERKGLRELHNGDWLAADASGRVPTPVLL 241
  ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 182 IHSYKADNSLAVRAGCGCPGNATVRLMSGERKGLRELHNGDWLAADASGRVPTPVLL 241

QY 242 FLDRDLORRASFVAETEMPPRKILLTPMHLVFAA-----RGPAAPGDFAPVFARLRAG 297
  ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 242 FLDRDLORRASFVAETEMPPRKILLTPMHLVFAA-----RGPAAPGDFAPVFARLRAG 297

QY 298 DSVLA---PGGD-ALRPARYAVA-REAVGVFAPLTAHGTLLVNDVLAICYAVLESHW 352
  ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 298 QRYVYVAERGGDRRLTPAAVHSTVTLREERAGAYAPLTAHGTLLVNDVLAICYAVLESHW 352

QY 353 AHRFAFRLRLHA-LGALLP-----GGAV-----OPT-GMHWYSLYRLA 391
  ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 353 AHRFAFRLRLHA-LGALLP-----GGAV-----OPT-GMHWYSLYRLA 391

QY 392 EELL 395
  ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 419 TWLL 422
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RESULT 12

US-08-757-230A-2

; Sequence 2, Application US/08757230A

; Patent No. 6235885

; GENERAL INFORMATION:

; APPLICANT: Thomas M. Jessell, et al.

; TITLE OF INVENTION: RAT HEDGEHOG PROTEIN-1 (VHH-1)

; FILE REFERENCE: 0575/45375-1/JPW/SHS/MVM

; CURRENT APPLICATION NUMBER: US/08/757,230A

; CURRENT FILING DATE: 1996-11-27

; NUMBER OF SEQ ID NOS: 9

; SOFTWARE: Patent version 3.0

; SEQ ID NO 2

; LENGTH: 437

; TYPE: PRT

; ORGANISM: RAT

US-08-757-230A-2

Query Match 57.6%; Score 1203; DB 4; Length 437;

Best Local Similarity 57.8%; Pred. No. 6.8e-125; Matches 245; Conservative 52; Mismatches 87; Indels 40; Gaps 10;

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QY 7 LILPCLLALIA-----ALLAPASCGRGPGVGRRRYARKOLVPLLYKOPVGPVPEPTLGAAG 61
  ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 4 LLARCFVLIALSSILVCPGLACGPGRG-FGKRHPK-LTPLAYKOPIPVNAEKTLGAAG 61

QY 62 PAEGRAVARGSERFDLPVNPNDIIFKDEENSGADRLMTERCKERYVALAIAVNMMPGV 121
  ||| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
Db 62 RYEGKITRNSERFELPNPNPDIIFFDEENTGADRLMTORCKDLALAI SVNMMPGV 121
```

```

QY 122 RLRTVEGMDGDHHAODSLHYEGRALDITTSRDRNKKYGLLRLAVEAGFDWYYESRNH 181
    :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 122 KLRVTEGMDGDHHEESLHYEGRAVDITTSRDRSKYGMRLAVEAGFDWYYESKAR 181
QY 182 VHVSVKADNSLAVRAGGCGPGNATVRLMSGKGLRELHGRDWMVLAADSGRVPTPVLL 241
    :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 182 IHCSTVAENSVAKSDGCGPGSATVHLLEGGTKLVKDLSPGDRVLAADQGRLLYSDFLT 241
QY 242 FLDRDLQARASFAVATEMPPRKLLTPMHLVFAA-----RGPAPRGDPAPVFAARLRAG 297
    :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 242 FLDRDGAKKVYVIEITRERRELLTAAHLLEFVAPHNDGSPRPG---SPLFASRVPRG 298
QY 298 DSVLA---PGGD-ALRPAVARVA-REAVGVFAPLTAGTLLVNDVLAACVAVLESHQW 352
    :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 298 QRVYVVAERGGDRLLPAAVHSTVLEEEAAGAVAPLTADGTLINRVLASCAVIEHSHW 358
QY 353 AHRAFAFLRLHA-LGALLPG-----GAVOPTGMHWYSRLLYRLA 391
    :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 353 AHRAFAFLRLHAALLAALAPARTDGGGGGIPAPQSVARAGAPPAIGHWYSQLYHIG 418
QY 392 EELL 395
    :||
Db 419 TWLL 422

```

## RESULT 13

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US-08-757-230A-9
; Sequence 9, Application us/08757230A
; Patent No. 6235885
; GENERAL INFORMATION:
; APPLICANT: Thomas M. Jessell, et al.
; TITLE OF INVENTION: RAT HEDGEHOG PROTEIN-1 (VHH-1)
; FILE REFERENCE: 0575/45375-1/JPW/SHS/MVM
; CURRENT APPLICATION NUMBER: US/08/757/230A
; CURRENT FILING DATE: 1996-11-27
; NUMBER OF SEQ ID NOS: 9
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 9
; LENGTH: 437
; TYPE: PRT
; ORGANISM: Rat
US-08-757-230A-9

```

```

Query Match          57.6%; Score 1203; DB 4; Length 437;
Best Local Similarity 57.8%; Pred. No. 6,8e-125;
Matches 245; Conservative 52; Mismatches 87; Indels 40; Gaps 10;

```

```

QY 7 LPLPCL-----ALLALPAQSGGPGRGVRRRYARKOLVPLLYKQFVGPVPTLGAAG 61
    :|||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 4 LLARCFVLVALASSLVCPLACGPRG-FGKRQHPKK-LTPLAYKQFINVAEKLIGASG 61
QY 62 PAEGRVARGSERFDLVPNYNDIIFKDEENSGADRLMTERCKERYNALAIYVMNMPPGV 121
    :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 62 RREGKITRNSERFKELTPYNYNDIIFKDEENSGADRLMTERCKERYNALAIYVMNMPPGV 121
QY 122 RLRTVEGMDGDHHAODSLHYEGRALDITTSRDRNKKYGLLRLAVEAGFDWYYESRNH 181
    :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 122 KLRVTEGMDGDHHEESLHYEGRAVDITTSRDRSKYGMRLAVEAGFDWYYESKAR 181
QY 182 VHVSVKADNSLAVRAGGCGPGNATVRLMSGKGLRELHGRDWMVLAADSGRVPTPVLL 241
    :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 182 IHCSTVAENSVAKSDGCGPGSATVHLLEGGTKLVKDLSPGDRVLAADQGRLLYSDFLT 241
QY 242 FLDRDLQARASFAVATEMPPRKLLTPMHLVFAA-----RGPAPRGDPAPVFAARLRAG 297
    :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 242 FLDRDGAKKVYVIEITRERRELLTAAHLLEFVAPHNDGSPRPG---SPLFASRVPRG 298
QY 298 DSVLA---PGGD-ALRPAVARVA-REAVGVFAPLTAGTLLVNDVLAACVAVLESHQW 352
    :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 298 QRVYVVAERGGDRLLPAAVHSTVLEEEAAGAVAPLTADGTLINRVLASCAVIEHSHW 358

```

```

QY 353 AHRAFAFLRLHA-LGALLPG-----GAVOPTGMHWYSRLLYRLA 391
    :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 353 AHRAFAFLRLHAALLAALAPARTDGGGGGIPAPQSVARAGAPPAIGHWYSQLYHIG 418
QY 392 EELL 395
    :||
Db 419 TWLL 422

```

## RESULT 14

```

PCT-US95-02315-2
; Sequence 2, Application PC/TUS9502315
; GENERAL INFORMATION:
; APPLICANT: Jessell, Thomas M.
; APPLICANT: Dodd, Jane
; APPLICANT: Roelink, Henk
; APPLICANT: Eklund, Thomas
; TITLE OF INVENTION: DNA ENCODING A VERTEBRATE HOMOLOG OF
; TITLE OF INVENTION: HEDGEHOG, VHH-1, EXPRESSED BY THE NOTOCHORD, AND USES
; NUMBER OF SEQUENCES: 6
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Cooper & Dunham
; STREET: 1185 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: USA
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: PCT/US95/02315
; FILING DATE:
; CLASSIFICATION:
; ATTORNEY/AGENT INFORMATION:
; NAME: John P. White
; REGISTRATION NUMBER: 28, 678
; REFERENCE/DOCKET NUMBER: 45375-A-PCT
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 278-0400
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 437 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
PCT-US95-02315-2

```

```

Query Match          57.6%; Score 1203; DB 5; Length 437;
Best Local Similarity 57.8%; Pred. No. 6,8e-125;
Matches 245; Conservative 52; Mismatches 87; Indels 40; Gaps 10;

```

```

QY 7 LPLPCL-----ALLALPAQSGGPGRGVRRRYARKOLVPLLYKQFVGPVPTLGAAG 61
    :|||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 4 LLARCFVLVALASSLVCPLACGPRG-FGKRQHPKK-LTPLAYKQFINVAEKLIGASG 61
QY 62 PAEGRVARGSERFDLVPNYNDIIFKDEENSGADRLMTERCKERYNALAIYVMNMPPGV 121
    :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 62 RREGKITRNSERFKELTPYNYNDIIFKDEENSGADRLMTERCKERYNALAIYVMNMPPGV 121
QY 122 RLRTVEGMDGDHHAODSLHYEGRALDITTSRDRNKKYGLLRLAVEAGFDWYYESRNH 181
    :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 122 KLRVTEGMDGDHHEESLHYEGRAVDITTSRDRSKYGMRLAVEAGFDWYYESKAR 181
QY 182 VHVSVKADNSLAVRAGGCGPGNATVRLMSGKGLRELHGRDWMVLAADSGRVPTPVLL 241
    :|||||:|||||:|||||:|||||:|||||:|||||:|||||:|||||:
Db 182 IHCSTVAENSVAKSDGCGPGSATVHLLEGGTKLVKDLSPGDRVLAADQGRLLYSDFLT 241

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[illegible]

RESULT 15  
US-08-176-427B-2  
; Sequence 2, Application US/08176427B  
; Patent No. 5789543

```

1  GENERAL INFORMATION:
2  APPLICANT: Ingham, Phillip W.
3  APPLICANT: McMahon, Andrew P.
4  APPLICANT: Tabin, Clifford J.
5  TITLE OF INVENTION: Vertebrate Embryonic Pattern-Inducing
6  TITLE OF INVENTION: Proteins and Uses Related Thereto
7  NUMBER OF SEQUENCES: 33
8  CORRESPONDENCE ADDRESS:
9  ADDRESSEE: LAHIVE & COCKFIELD
10 STREET: 60 State Street
11 City: Boston
12 STATE: MA
13 COUNTRY: USA
14 ZIP: 02109
15
16 COMPUTER READABLE FORM:
17 MEDIUM TYPE: Floppy disk
18 COMPUTER: IBM PC compatible
19 OPERATING SYSTEM: PC-DOS/MS-DOS
20 SOFTWARE: ASCII(text)
21
22 CURRENT APPLICATION DATA:
23 APPLICATION NUMBER: US/08/176,427B
24 FILING DATE: 30-DEC-1993
25 CLASSIFICATION: 435
26 ATTORNEY/AGENT INFORMATION:
27 NAME: Vincent, Matthew P.
28 REGISTRATION NUMBER: 36,709
29 REFERENCE/DOCKET NUMBER: HMI-006
30 TELECOMMUNICATION INFORMATION:
31 TELEPHONE: (617) 227-7400
32 TELEFAX: (617) 227-5941
33
34 INFORMATION FOR SEQ ID NO: 2:
35 SEQUENCE CHARACTERISTICS:
36 LENGTH: 425 amino acids
37 TYPE: amino acid
38 TOPOLOGY: linear
39
40 MOLECULE TYPE: protein
41
42 US-08-176-427B-2

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Query Match	57.4%	Score 1198	DB 1	Length 425
Best Local Similarity	59.4%	Pred. No. 2.3e-124		
Matches 244	Conservative 56	Mismatches 91	Indels 20	Gaps 10

OY 1 MALLTILNP--LCCIALMLPAGSCGPQPVGRRRKAYOLVPLLYIKFOFVGVPERT 57  
| | | | : | | | : | | | : | | | : | | | : | | | : | | | : | | |  
Db 4 MLLLTRILLVFIC-ALIVSSGLTCGPRGC-IKRNRHKK-LPLLAIKPIINVAEKL 59  
  
OY 58 GASGAECERVARSGSERPDLPNNPOLIKRDENSCADRLTERCKERYNATALAIVMM 117  
| | | | : | | | : | | | : | | | : | | | : | | | : | | | : | | |  
Db 60 GASGTIEKRIITRSERFEELTPNNPNPDIIRFDEENTCADRIMORCKDKINALAIYVNO 119  
| | | | : | | | : | | | : | | | : | | | : | | | : | | | : | | |  
OY 118 WPGVKLRATVEGWDEGNHAADSLIHYEGRALDTTSDRDNRKKYGLLARLAIVEAGFDWUYE 177

Db 120 WPGYKLTAVTEBMDGDGHSSESLYIEBRADITTSDDDBRSKYGMATRLAYAEAFDWWYIE 179

Qy 178 SRNHVHYSKADNSLAYBAGCGFPGNATYRLMSGERKGLBELHRCGWYLAADSGRYVPT 237

Db 180 SKAHICHSYKAKENSVAASKSGCEPFGSATVHLHERGTVLVDLDESPGDVYLAADDGRLIYS 239

Qy 238 PVLLEFLRDLDLRASFAVAETEMPRRLTLTPMLVLA--RGAPAPAGDFA--PYEARR 293

Db 240 DFLFELFLRMSSRLFYVETROPARLLTLAHLTLVAPOHMOSEATGTSQALFASN 299

Qy 294 LRAGDS--VLAPGGDALRPAPAAVA--REAVGYEAFPLTHAGTLNVDAASYALVESH 350

Db 300 VKPGORYVVLGGEGQQLPHSYHVSYLREBSKAYALTLNQGILLINRYLAACYAVIEEH 359

Qy 351 QMAHRAAPRLTLHA--LGALLPGAV----QPGMHVYSLRYLAELL 395

Db 360 SWAHMARPFLAOGLLAALCPDAPALPAATTTGTHWYSRLRYIGTSWVL 410

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